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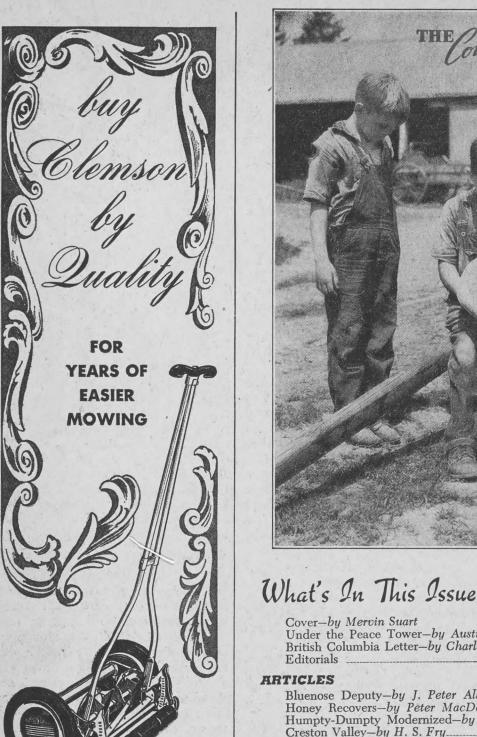
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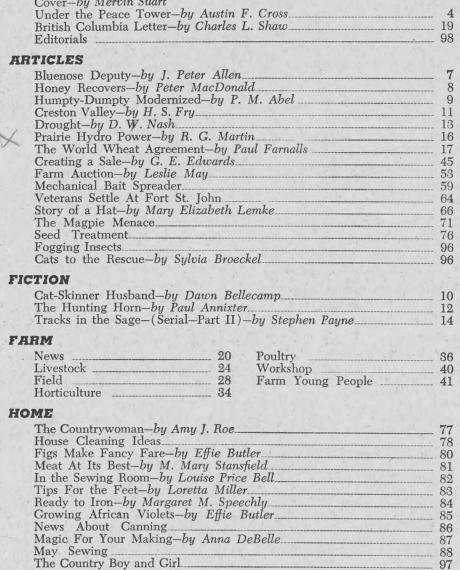
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Advertising Manager: K. D. EWART. Extension Director: G. B. WALLACE Subscription Prices in Canada—50 cents one year; \$1.00 two years; \$2.00 five years; \$3.00 eight years. Outside Canada \$1.00 per year. Winnipeg City \$1.00 per year. Single copies 5 cents. Authorized by the Postmaster-General, Ottawa, Canada, for transmission as second-class mail matter.

Published monthly by The Country Guide Limited, 290 Vaughan St., Winnipeg, Manitoba.

Printed by The Public Press Limited.

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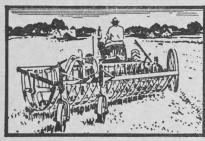


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INTERNATIONAL HARVESTER

Under The Peace Tower

7OU could have knocked me over with a wisp of smutty oats when I got back to Canada and found an election had been called. I had just landed by plane from Amsterdam, and my mind was still in Europe, keeping company with Tito, Gottwald and the Iron Curtain Boys. To put it mildly, I was out of touch.

As soon as I got to Ottawa, I rushed up to the parliamentary restaurant, and between the soup course and the ice cream, I managed to get Lesson I in what was happening. From then on, everything came easier. If you want to know the lowdown as it comes to me as of the earliest days of May, here it is.

I will be known in Europe as the worst political prophet the Press Gallery ever had, for I told it up and down the Continent all the way from Holland to Yugoslavia that there would not be an election till this fall. When I left Canada, that was true enough. But I have now turned out to be Operation Ananias. What happened in the meantime?

When Premier St. Laurent chose a long Easter recess, it was to give himself a chance to get better acquainted with western Canada. He wanted to go out there, see how things went, and more or less pave the way for a fall campaign. But his whirlwind trip west proved such a success that he changed his mind completely. Between what he saw, and what he was told, he believed that his best chance of winning an election was to pull one off at the earliest date.

First of all, the West looked better than he had expected. As a corollary, St. Laurent looked better to the West than they had expected. On the West Coast, he seemed to wow the boys. And the ladies. For Prime Minister King had been austere, remote. They felt safe with The Mahatma, never warmed up to him. St. Laurent, with all his radiant charm, and-this is important-and at long last being a prime minister with a wife, made quite a hit.

N Manitoba, it was seen he would do no worse than he was doing now, and might pick up a seat or two. In Saskatchewan, once a Liberal stronghold, it was felt he would get no fewer than five, maybe as many as nine seats. In Alberta, one more maybe, possibly two. British Columbia was expected to come through with two or more additional seats. For instance, Parliament Hill heard that the Grits might get back Vancouver Centre, which they lost when Hon. Ian MacKenzie resigned.

Then there was the hint that maybe a drought was coming. If it was, then the smart thing was to get the election over, for a drought summer and a fall election meant a C.C.F. victory from Ontario to the Rockies.

Now nobody who reads this worthy monthly believes that any election these days can be won or lost on the prairie. Therefore, I am fooling nobody if I say that the Western trip alone changed the Liberals' minds. The only thing his Pacific safari did for St. Laurent and the Boys in the Back The opinions expressed Under the Peace Tower are those of our correspondent and not necessarily those of The Country Guide.

Room was to persuade them that the tide had turned toward Liberalism. "There is a tide in the affairs-" said Shakespeare, and the Grit Brain Trust figured that this was it.

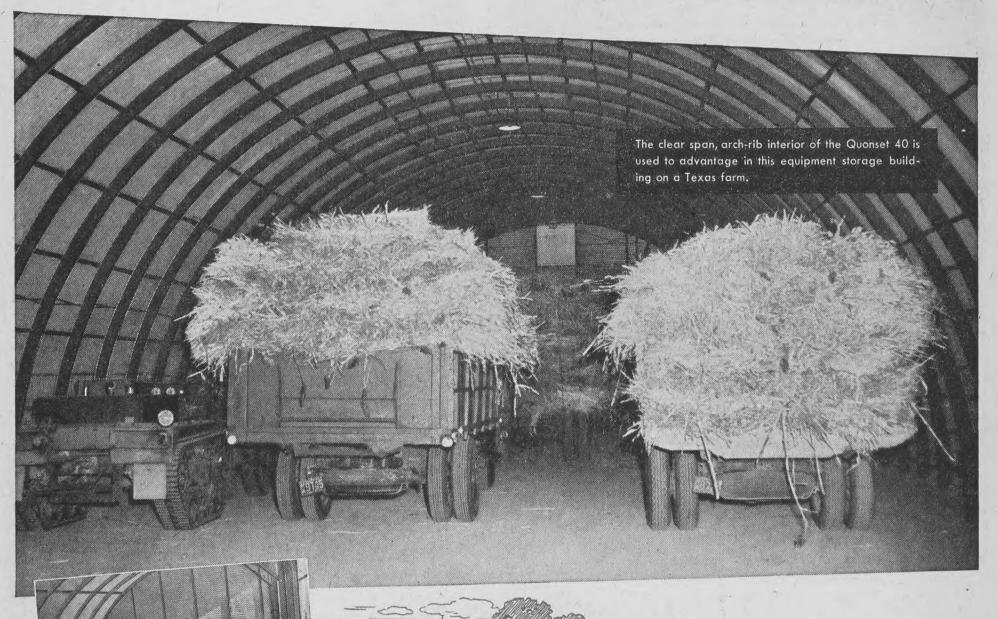
N Ontario, where Drew was to have such easy pickings, the situation had changed. Voters had not precisely forgotten the blackout last fall. Again, the interim regime of Premier Tom Kennedy had done little to strengthen Conservatism in Ontario, grand a man as Premier Kennedy is. But the fooling around inside the Progressive Conservative regime in Toronto had the general over-all effect of weakening rather than strengthening the Conservative administration in Toronto. Then, the election, coming so very quickly after the Tories had in convention picked Leslie Frost as the new leader, would catch them before they had a chance to get set.

In the individual federal ridings, the Liberals figured that instead of Drew filling his hat, that the Liberals would pick off at least half a dozen. Few now realize that from 1940 to 1945, the Liberals had about 55 seats in Ontario, the Conservatives a scant 27. It was reasonably sure that ridings like North Wellington, where Louis Menary got in by 30, might well revert to traditional Liberalism; that Leeds, no longer enjoying the glamour of a Leeds county boy as federal leader (John Bracken was born in Ellisville, Leeds), might take another look at Liberal George Fulford, and that such weak sisters as never-mindwho would be trimmed by some upand-eoming Grits. Ontario then, was not going to give Drew the extra seats originally expected, so spoke Ontario Grits.

Then in January, or as late as February, Drew looked to be good for 25 seats in Quebec. Now they say that 10 would be the outside figure,

and it could be as few as five. First of all, his Silent Partner, Hon. Maurice Duplessis having troubleplenty of it. Turn to page 96

give your valuable farm equipment steel-clad protection in a



This Quonset 24 provides warm, well-lighted housing for sheep.

Efficient, versatile Stran-Steel Quonsets are made to order for farm implement and machinery shelter!

Stran-Steel Quonsets are all-steel, fire-resistant and rot-proof. Their clear span construction means that every last inch of floor space can be utilized. And the flexibility of design afforded by nailable Stran-Steel framing permits wide latitude in door and window arrangements.

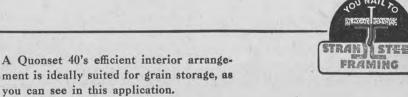
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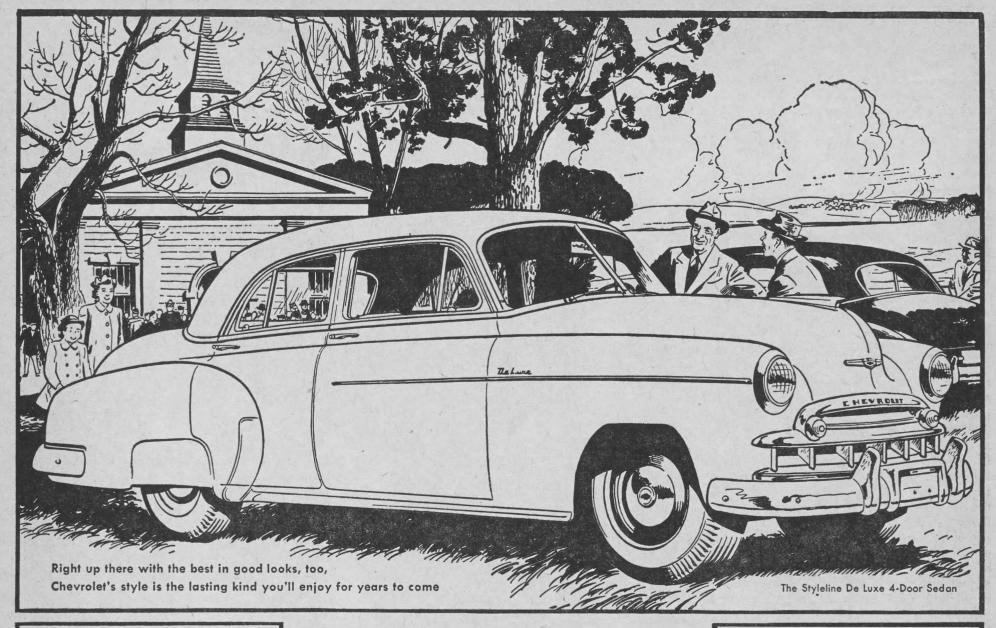
Whatever your farm building needs, you can meet them better—meet them faster and at less cost with a new and improved 1949 Quonset. See your local Quonset dealer today, or write direct for his name and address and additional information.

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A farmer knows machinery, and he appreciates Chevrolet's sound construction and lasting dependability

The modern farmer has to be a skilled mechanic, too. And this experience with farm machinery makes him well qualified to judge automobiles. That's why Chevrolet's powerful, thrifty Valve-in-Head Thrift-Master engine is such a favorite on the farm. It's engineered to serve more dependably for more years ... under all conditions... at less cost... with less care. It meets his standards on every point of value and performance.



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On every point, Chevrolet gets the farmer's vote for top value. It gives him styling that will be beautifully modern through the years. It gives him powerful yet economical engine performance. It gives him lasting comfort and safety.

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There's room for everyone inside and storage space to spare in the trunk — which means real riding comfort, as well as saving many an extra trip!

This new Chevrolet's got an interior that's really family-size! Roomy "Five-Foot Seats" let you enjoy the longest trip in comfort! And the trunk is just what you'd design yourself — big enough . . . and easy-opening too — a single twist of the key does it!

THOUGH born in Nova Scotia and educated at the Nova Scotia Agricultural College and the Ontario Agricultural College, James Gordon Taggart, CBE, Canada's new Deputy Minister of Agriculture, will probably always be regarded as a Westerner by the thousands of farmers and workers in professional agriculture with whom he came in contact during his more than thirty years of activity in the provinces of Alberta and Saskatchewan.

For in his eight years' association with the Provincial Schools of Agriculture in Alberta, his thirteen years' superintendence of the Dominion Experimental Station at Swift Current, and his ten years as Minister of Agriculture for Saskatchewan,

Mr. Taggart definitely influenced in many ways the pattern of prairie agriculture—and incidentally gained experience and knowledge that will be of inestimable service to him in his new post at Ottawa.

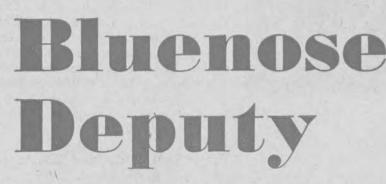
When, in the fall of 1913, the Hon. Duncan Marshall, Alberta's Minister of Agriculture, opened three agricultural schools on former demonstration farms at Claresholm, Olds and Vermilion, he chose as principal of the Vermilion school, A. E. Howes-later to become universally known throughout the West as Dean Howes, because of his association with the University of Alberta. And Howes, himself a graduate of the Ontario Agricultural College, in turn selected as two of his staff for the new venture, a pair of recent O.A.C. graduates who were giving a good account of themselves in Ontario's agricultural representative service. These were J. G. Taggart and E. S. Hopkinsthe latter, by the way, the Dr. Hopkins

who, as Associate Director of the Dominion Experimental Farms Service, again finds himself on the same team with Taggart.

THESE Alberta Schools of Agriculture at the time of their founding represented something of an experiment in rural education, a fresh approach to the problem of improving the farm and the home. In courses that covered two winter sessions of five months each, they trained rural boys in better farming and rural girls in home economics. Their purpose was not to fit their students for positions in professional life, but to add to their equipment as farmers and homemakers; and to add as well to their cultural and spiritual equipment, so that they and their communities might enjoy a

richer life. That the experiment succeeded is shown by the fact that today, more than 35 years later, the Olds and Vermilion schools are still carrying on the ideals of the founders, and have long enjoyed an important place in the esteem of farm folk throughout Alberta.

Though the sessions were short at these schools, staff members put in full years in more senses than one, for spring and summer brought heavy engagements in the "extension" field. School fairs, farmers' gatherings, visits to individual farm homes—these and other opportunities were taken full advantage of to preach better livestock,



James Gordon Taggart, who succeeds Dr. Barton as permanent head of the federal Department of Agriculture, has been thoroughly westernized in a hard school

by J. PETER ALLEN

improved breeding practices, suitable varieties of field crops, the benefit of crop rotation and the like, and, above all, to urge that boys and girls be given a chance to fit themselves for the lives they hoped to lead.

I recently discussed those early days in the Alberta Schools of Agriculture with F. S. Grisdale, now deputy chairman of the Wartime Prices and Trade Board at Ottawa, but, like Taggart and Hopkins, associated with these schools from the outset of the scheme, though never actually on the same school staff with them.

"The Vermilion area in those days offered a real challenge," he observed. "Among its settlers it counted many new Canadians—new to the Canadian schooling system and to the Canadian way of life. And in the field of public relations Howes and Taggart made a great team and did a grand job."

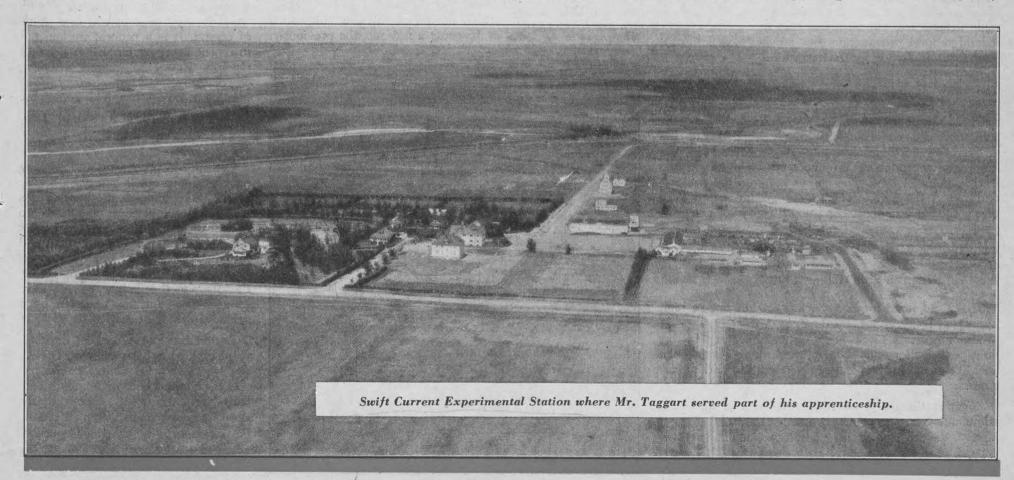
TOT only did Taggart establish a reputation as a worker in those Alberta days but he showed his versatility as well. A graduate in cereal husbandry, he taught animal husbandry for two years at the Vermilion school, then taught science (physics and chemistry)

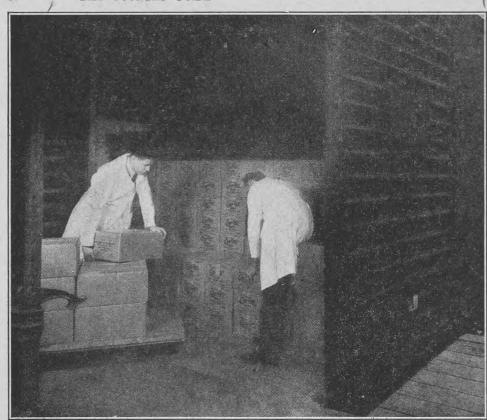
for three years at the Olds school, and finally returned to Vermilion to take up administrative work as its principal for the years 1919-21. And, as a sideline, he played a good brand of hockey for two winters with the town team at Olds, and played baseball at Vermilion.

J. G. Taggart

In February of 1921 Gordon Taggart changed his job. The Ford Motor Company had brought out one of the first of the modern and more flexible tractors, and they wanted someone to demonstrate in the Canadian prairies what mechanization could do for farming, with the idea, of course, of cashing in later on this through the sale of their U.S.-made tractors through the Canadian company. The man they chose to put across the idea of mechanization on a wide scale was Taggart, and, with head-quarters in Regina, he worked his field with his customary energy until in October of the same year, he was offered the post of superintendent of a Dominion Experimental Station being organized at Swift Current.

This short interlude with the Ford Company is regarded by Mr. Taggart as a valuable experience, since it directed his attention to the possibilities of cutting operating costs on a per-acre basis through proper mechanization, particularly in large-scale grain farming. It pointed the way to one approach to dry farming that was destined for further exploration in the Swift Current venture, namely, that where lack of moisture definitely limited the possibility of increasing yield per (Turn to page 60)





II (DAY DAY Recovers

Honey was the first Canadian agricultural product to run into post-war marketing trouble. Prices are leveling out, however, and operators believe they are now on rock bottom

by PETER MACDONALD

HE honey producers of Canada are just recovering from a bare knuckle contest with a principle of elementary economics. They bear some deep scars, but with the help of federal support price action they are in good fettle and ready for the next round.

Before the war honey gatherers were unorganized. The price of their product for the previous decade fluctuated between six and nine cents, more often than not near the bottom of that range. A lot of it was poor stuff and did not command much respect. But the growers formed themselves into co-operatives in all the four surplus-producing provinces, Ontario taking the lead in point of time. The co-ops bettered the product and raised the price. They were getting along very nicely till the war upset the smooth course of progress.

Wartime brought sugar rationing, price controls, and a languishing death for the small export market in existence at the commencement of hostilities. Let's look at these restrictions a little closer.

THE fixed price for honey was fair, but not so high as to bring about, by itself, any great upsurge in production. Had there been no complicating factors honey production would have gone along on an even keel like so many other businesses operating under price

Sugar rationing, however, served as a powerful stimulant. Scarcity of sugar meant shortage of jam. Honey took its place on countless Canadian tables. Bakers, confectioners, and soft drink manufacturers, who use both sugar and honey in varying quantities,



A co-op worker reading a refractometer which gives a quick determination for moisture content.

The pasteurizer which kills yeasts and ferments and gives the honey perfect storage qualities.

Loading a car with honey at the Manitoba Co-op.

according to its price and availability, began to cock an acquisi-

tive eye at honey. The public had lots of spending money. There was a brisk demand for their products, but the sugar quota put a brake on their production. However, the government bore down on them and limited the purchase of honey for industrial use to pre-war quantities, so that the lively household demand for honey could be satisfied as nearly as possible.

The text book boys can tell you what happens under supply and demand conditions with a fixed price and a sharp increase in demand. Production figures rocket upward. And how they did! Honey producers in Canada numbered about 28,000 before the war. By V-E Day it was 43,000. In that time Canada's colonies expanded from 400,000 to 590,000! To be sure, the increase in tonnage produce bore no relation to these figures. Too many of the newcomers to the business were beginners and yields per hive were down.

THE end of the war brought an I end to restrictions but all products were not treated alike. Consequently prices reacted variously. Sugar controls were maintained longest; in fact some measure of control still exists. When the axe first descended on controls, there were small price increases in corn syrup, marmalade, and the more choice jams. Something quite different happened to honey.

Honey is an uncertain crop. There are wide and unpredictable fluctuations between two successive years. Rain, wind and cold cut down activity of the bees; fluctuating quantities of bee food, particularly sweet clover occur with fluctuating rainfall; plus the multiplicity of factors that influence production of any other class of livestock. The year 1947 was not a good one. Rumors got around that there would not be enough honey to meet requirements. Buyers at the coast and in Ontario bid prices up to a fantastic level. One trading concern sold 365,000 pounds at 38 cents a pound, as against a control price which started at 12 cents and ended at 15 cents a few months previously.

The public has its own way of dealing with meteoric price rises. Housewives cut honey off their list, replacing it with other sweets, the price of which had remained relatively constant. Bakers, confectioners, and soft drink makers reversed their wartime love for honey, for sugar was becoming more available at a relatively low price. The buyers' revenge was complete. The price plummetted to distress levels and surpluses began to pile up. By May 1948 warehouses which had never before carried a surplus over into the new crop period were piled high. The classical economists will never get a better illustration for their supply-and-demand theory of price determination.

This disastrous turn of events has brought some anxious moments to the co-ops. In previous times individual producers would have been left holding the bag. But the co-ops have done too good a job. They have drawn the business too successfully into their own hands, and with it the inescapable grief. Take the Manitoba Co-op as an example. Three-quarters of the commercial honey made in the province now passes through its hands. If you subtract from the balance the amount sold retail by beekeepers in their respective home localities it doesn't leave much scope for other big operators within the province.

MORE important still, the co-ops have encouraged their members to hand over the business of packaging. Before the rise of the co-ops individual beekeepers bought pails by the carload and did their own straining and filling, giving the customer plenty to take care of possible inaccuracies in their cheap scales. Then they ran the risks of deterioration until buyers were willing to take delivery.

The co-ops are changing all that. Beekeepers ship to them in bulk containers obtained from the processing plant. The honey is stored in proper warehouses at controlled temperatures until it is ready for processing, which can go on the year round if necessary. Processing consists of reducing the moisture content when required, pasteurizing, cooling, and seeding with "seed honey" to induce a fine grade of crystal. It is a process worked out in recent years by Dr. Elton Dyce of Guelph. Honey so treated will last, theoretically at least, forever. The Manitoba Co-op has had containers with honey in perfect condition returned from England after eight years storage in that damp climate.

Centralized processing and packing enables the co-ops to put out a higher grade, more uniform product, at less cost for handling. As its operations are spread throughout the year it collects big inventories in the autumn, and probably has more explaining to do to its patrons in years of falling prices. Fortunately the honey co-ops have trained those patrons to listen by a splendid record of service.

Across the line a parallel development took place after the war. O.P.A., the American price control machinery, was dismantled before Canadian controls were removed, therefore the American beekeepers met their Waterloo six months before the Canadians engaged in the business. One of the



(Turn to page 42)

dispensing largesse on such terms is it any wonder that Britain is trying to pare down the agreement made with Canada last December? If it continues, is there any hope for a British

We have been experiencing some

changes here in Canada that have a

bearing on the egg and poultry situation. Feed prices were sky high in

1947 and a lot of marginal producers must have decided that they would

get a better return for their energies

devoted to other activities. At all

To meet war-time demands Canadian processors expanded egg breaking and freezing plants, just as they had the drying plants. The business grew nicely until this year. Besides sales to Britain an encouraging continental trade in Canadian eggs was being nursed into existence. It has been dealt a crippling blow. In recent months fairly active American dumping-Geneva agreements, or no Geneva agreements-have put frozen eggs into Britain and Austria as low as 15 cents a pound. The Canadian seaboard price

THAT is the answer to the bright individual who counsels Canadians to seek an alternative outlet to compensate for the British market we are in the process of losing. When American supplies are available at half-price, on the cuff, who can be interested in fair prices paid in hard money? With a rich uncle

agreement next year?

at the time was 33.9 cents a pound.



Two electrically operated oil-spray machines. Treated eggs do not lose much moisture during storage.

HERE have been many prophets of gloom since the end of the war. Most of them talked in vague terms, and most of them have turned out to be wrong. But today in the poultry business they are spelling out their anxiety.

Before the war the export of eggs and poultry was not big business. In the early 30's when Canadian farmers needed export markets as never before we never sold a million dollars worth of poultry products abroad in any year. Many Canadians thought there ought to be more in it than that. We can grow birds cheaply, and our national grading system protects foreign customers in a manner not excelled by any of our competitors. Yet none but a few big operators seemed to be able to crash outside markets.

The changes wrought by the war are fresh in the minds of everyone. The British Food Ministry controlled purchasing and made contracts with the Canadian government that brought us as much as \$44 million for eggs alone in the peak year. In 1948 Canada sold 44 million pounds of live and dressed poultry abroad at record prices. A very handsome advance over the piffling business drummed up by private enterprise in pre-war days!

But building up steadily behind this imposing record are forces that threaten to bring down the whole edifice like a house of cards.

Foremost among these is Britain's well advertised dollar agony. Until 1948 the British Food Ministry contracted with Canada for 3½ million cases-30 dozen to the case. They had to import that much to maintain even their slender egg ration because domestic flocks were severely reduced and feed supplies for the remainder were scarce.

It's not like that today. British farm flocks are beginning to fill the gap and barter arrangements are bringing in eggs from Poland, Denmark and

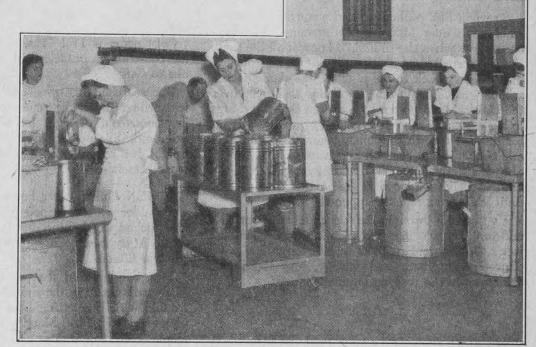
Holland. Precious dollars have to be switched to other purchases. The British contract was cut down from 3½

M (I) I) A BN VA A I

A preview of coming events in the Canadian poultry business

to 1½ million cases last December and there are efforts being made to whittle it down finer as the contract period wears away. There is no indication that there will be any contract at all next year. There are good reasons for suspecting that a new contract will be hard to negotiate. There is no private trading with Britain in major food commodities. For Canada: no contract, no exports.

By P. M. ABEL



Breaking eggs at a freezing plant. Twelve girls in this modern plant can break 90,000 in a seven-hour day.

Break down the old contract and you will observe that it includes an item of fresh shell eggs. Canada shipped half a million cases of fresh eggs overseas last year. There's not a word about them in the new contract. Our impoverished customer can't afford them. Not a single crate of them will

cross the Atlantic on British contract this year. There's the most profitable part of the business gone.

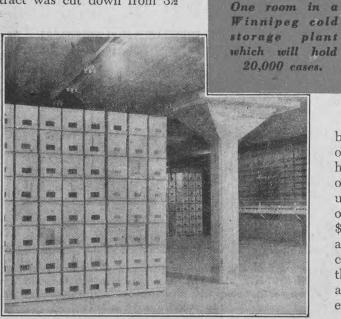
Now look south across the border. The Americans have a big surplus problem on their own hands. The producer doesn't feel the effects of it because the parity program keeps the price up. Where the normal interplay of supply and demand would bring prices down and discourage production the Americans are merrily hatching more eggs.

Uncle Sam has no contract for British shell eggs but he is in a position to sell prodigious quantities of dried and frozen eggs for Marshall dollars to hungry Europe. Dried eggs have already been officially declared a surplus. If E.R.P. dollars are used to buy dried eggs they must be American eggs only. The U.S. government has a support price of \$1.26 to \$1.28 for egg powder dependent on packaging. That works back to the farmer at about 35 cents a dozen depending on his location. Today the American government is selling powdered eggs across the Atlantic for 87 cents a pound! The federal treasury puts up the difference.

events the 1948 hatch of baby chicks showed a drop of 23 per cent under the previous year. Fewer chicks in the spring mean smaller dressed poultry sales in the fall, and fewer eggs a year later. That is what we have been experiencing in Canada. A 15 per cent drop in production means a much heavier drop in quantities available for export. Producers shortened sail when the gale began, but unfortunately not because it began. As the wind continues to rise they are hoisting their furled sails

FEED prices receded from 1947 levels and producers began going back into the business. On March 1 of this year the hatchery output in Canada, heavily weighted by Ontario and B.C. sales, was 45 per cent higher than 1948. Western producers are more export conscious. The significance of the dwindling British contract had not entirely escaped them. By the end of the hatching season when the prairie returns are in, increase in chick output across Canada will be 15 to 20 per cent over 1948.

So this, in effect, is the position. Last year's decrease in production turns out to be not a new trend in conformity with decreasing export opportunities, but merely a temporary marking of time. The storm will break when the flood of eggs from this year's pullets comes on the market in late fall, along with the (Turn to page 38)



Mary knew that she would never be able to fit Phil into the life of the valley. Always he would stride among them a stranger, never quite one of them, but kindly tolerated for her sake



HEN the farm folk of Golden Valley heard that little Mary Hanson had up and married that cat-skinner fellow they shook their heads sadly. Everybody agreed with Tim Gillis when he said, "It won't work out. That sort of a chap'll never make a farmer, and Mary, she won't never be happy at anythin' else."

So when Phil packed up and went off to Yellowknife last winter Mrs. Sanders summed up everyone's views when she sniffed, "I knew it all the time. I'm just surprised he didn't walk out on her sooner."

It all goes back to the night of the dance in the school house. Early spring lay balmy and green over the valley. Mary wore a blue chiffon that did things to her eyes, and she felt young and breathless again for the first time in the lonely years since Pop died and the farm had been all hers, mortgage included. She was a shy, conservative sort of girl. Not the kind to believe in love at first sight. That is, not until Phil came, and it happened.

He walked through the door, looking reckless and out of place in a red plaid shirt and lumberjack's breeks and with a clean look. His eyes danced with youth and vitality, and there was assurance in the way he handled himself.



It must have been that confidence that set him apart, for even as they stared at the red plaid shirt the girls bridled and smiled at him, and the men had a sudden urge to change their well pressed suits to something a little more dashing.

His glance roamed the room and came to rest on Mary. He came straight to her. The room became quiet, everyone straining to hear what he said to her.

"My name is Phil Crawford. I'm working with the construction outfit on the highway. Would you like to dance?"

She searched his eyes, and rose, drawn to him irresistibly. Later she remembered trying to keep her hands out of sight for they were rough and calloused. She had missed Pop so terribly, and fought her sorrow and loneliness doing the farm work herself.

WHEN Phil saw her home from the dance the older women gasped in dismay. Some of the men looked worried too, but none of them did anything. Mary had been running her own life since she was fifteen.

Mrs. Sanders said she was going over to talk to Mary, straight from the shoulder, but she had some trouble with her setting hens, and before she got around to it Phil and Mary were off on their honeymoon. Phil bought Mary a bigger diamond than any of the Valley wives had, and they had a longer honeymoon. When they came back to the little mortgaged farm their money was gone.

Mary remembered the way Elsa had looked from the ring on her finger to the hole in the living room plaster, but she was glad she had the diamond. It was the symbol of all the wildest, sweetest love a woman ever had, for she knew her way past the swaggering facade the world called Phil to the generous heart that mated her own.

They planned to spend the winter in the bush in Ontario. Phil could make good money as a catskinner there. She would get a job too, and together they would pay off the mortgage; for her roots were deep in the valley, and Phil in his tenderness for her sensed it.

They didn't go east. By fall they knew Billy was coming.

"A caboose behind a lumbercamp may be okay for us, Honey," Phil told her, "but it's not the place to raise a family."

He set to work fixing the house.

They borrowed money in the spring to put in the crop, ran on credit all summer. In the fall when the debts were paid they had two hundred dollars left.

"I used to make that in a month," he said, looking back over a summer of grinding toil for both of them.

Financially the next fall was about the same. By then it had been a long time since she had seen Phil's young, devil-may-care grin. The day they added up the always inadequate returns he pushed the book away impatiently. "This darn farm reminds me of a mess of quicksand I sunk a Cat into once... the more you fight to get on top the faster you sink."

The cold, grey days of winter settled over the valley. Phil brought firewood from the bush and sawed it into stove lengths. On mild days he worked about the old barn and corrals, bringing them back from their former disrepair. But there was a restlessness in him, and seeing it, a little fear began to gnaw at Mary's heart.

ON the evening of Billy's second birthday Elsa and Tim dropped in, bringing a pair of mitts as a gift for the baby. After the youngster slept they gathered around the table to play whist.

Between rounds, as the cards were dealt, she excused herself and went to replenish the kitchen fire. When she came back Phil was telling one of his stories.

"It's rough country up there between Dawson Creek and Fairbanks. Lots of action. One morning I pulled up behind a big oil tanker at the top of Suicide Hill. There were two or three trucks travelling pretty close together down on the other side of the bridge, and this chap with the oil tanker figured to wait till they cleared out of there before he started down. He was carryin' a lot of weight. Slid over to a ledge on the side of the road, set his brakes, but they wouldn't hold. He skidded down sideways . . ."

Mary was aware of the little currents running around the room as her friends heard about a life so remote from theirs that they could not understand it. Elsa's eyes narrowing a little, branding Phil as a show-off and a liar; the restless shifting of Tim's shoulders. "That's nothing, I could do it too, only I'm tied up here with Elsa and the kids . . ."

But Phil was living in his story, eyes bright, remembering.

"The tanker got out of control and went over the side. It's a long way to (Turn to page 46)



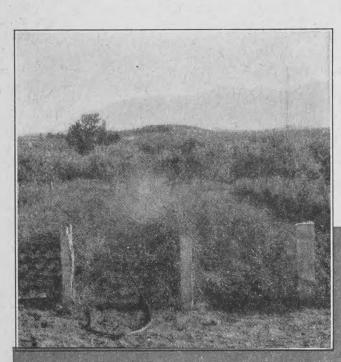
Phil had a gentleness reserved for Mary and little Billy. His strength and gay confidence made a buffer between her and the world she had once had to wrestle with alone.

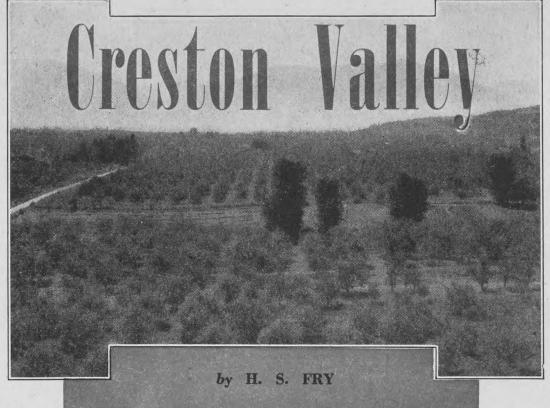
HEN I entered Creston Valley in mid-August I was 1,250 miles away from Fort Vermilion in northern Alberta, where I had been almost exactly five days before (April, page 9). It had been a long jaunt, broken only by a stop-over at Edmonton where I was joined by Dr. R. J. Hilton of the University of Alberta. From Edmonton we could only allow ourselves eight days and a half to visit the Creston, Grand Forks and Okanagan Valleys and get back to Calgary. We did it by the skin of our teeth, but it meant that we had to leave Edmonton early Saturday afternoon and drive to Jasper, then down the beautiful Jasper-Banff Highway, and from Banff, south as far as possible Sunday evening, in order to arrive in Creston reasonably early Monday morning.

The driving from one important agricultural area to another in B.C. is often like that. The province is so mountainous that one often has to travel long distances around. The marvellous mountain scenery however, makes it an experience never to be forgotten; and when one does arrive at what is perhaps a small, cultivated valley it seems like a miniature paradise guarded by great silent hills, overlooked, perhaps, from some more distant point by a great, craggy and snow-topped mountain peak. During the daylight hours such valleys, of course, are scenes of bustling activity, but at night when darkness has overtaken the world, and the stars peer steadfastly from above, one thinks of the famous paraphrase of the 121st Psalm written by the Marquis of Lorne:

> "Unto the hills around do I lift up My longing eyes."

RESTON VALLEY was first occupied by permanent settlers in the early eighties. It was the completion of the main line of the Canadian Pacific Railway in 1885, however, which brought about the first influx of settlers into the Kootenays. Sporadic prospecting for minerals had already taken place, but by 1890 some camps had already opened on the branches of Kootenay Lake and some strikes reported up country. About 1892 reclamation began of part of the Kootenay Flats opposite the present town of Creston; and it was a Mr. Little, the foreman of this project, who first took out a preemption and later subdivided it into a town site. Today Creston Valley is an important tree-fruitproducing area in the province, which, at the time of the last orchard survey of British Columbia in 1945, had 1,877 acres in tree fruits. Originator of this development appears to have been a Mr.





Rykert, a customs officer at Fort Hill (then Ockatook), who was the first to plant fruit trees—about 15—in the year 1890 or before. It was he who induced Mr. Little, Captain Davis of the river boat Midge and Mr. Henderson, manager of the Reclamation Farm, to plant trees. Fred Little, it appears, planted about 25 trees around his house in Creston near the waterfront in 1895. Captain Davis, known as Mud-Hen Davis, planted on the west side of the river in 1893, but lost his trees in the following year from high water. In 1896 about 25 trees were planted on the reclamation farm, some of which were still living in 1922.

When the valley was first occupied, all of the bench land was heavily timbered and all of the early plantings, chiefly small lots of mixed varieties, were planted close to dwelling houses on the banks of the Kootenay River, or near the edge of the flats. Young trees at first were obtained from Pennsylvania and were shipped to Bonners Ferry in Idaho, then down the Kootenay River by the steamer Midge. Other nursery stock was secured from Ohio. By 1900 it was possible to obtain trees from Vancouver, but for a number of years nursery stock was brought in from Oregon and Toronto as well.

THE pioneer fruit growers were not too successful. Their trees suffered from early and late frosts, from lack of care and from unsuitable locations. Some were lost to deer, some to anthracnose, a fungus disease, while the oyster shell scale, prevalent on the cottonwoods and willows along the waterfront, soon infested the young trees generally. The first barrel sprayers came into use about 1906, and R. S. Bevan was the first local settler to be appointed inspector.

The first McIntosh Red apple in the Creston Valley was planted by Dave Learmouth in the spring, and by J. Sherwood in the fall, of 1903. By 1905 the planting of fruit had become quite general and two carloads of trees were shipped into the valley. In that year, R. Long at Erickson planted nearly six acres, 30 feet by 30 feet

Most irrigation in Creston is by the sprinkler system. Cultural methods vary from clean cultivation to sod.

A visit to one of British Columbia's important fruit producing valleys, first settled in the eighties

apart. About 1906, E. Simmons of west Creston planted the first Bing and Lambert cherries. Two years later came the first Delicious apples, and in the fall of 1908 Creston Valley was successfully represented at the Spokane Apple Show. Fruit from the district took many prizes in these years and in 1910 the first Canadian National Apple Show was held at Vancouver, while in November of 1911 the first Creston Fair was organized.

I tried to obtain some idea of the available land and the use made of it in the Valley area. From G. R. Thorpe, district horticulturist, I was able to obtain reasonably close figures, which indicated that the area comprises something less than 41,000 acres, of which substantially more than half is not farmed for various reasons. This

unfarmed land is either Indian Reserve land on the flats which could be dyked, timber limits not yet open for settlement, or land not suitable for agriculture. Farmed land totalled a little less than 18,000 acres of which about

not suitable for agriculture. Farmed land totalled a little less than 18,000 acres, of which about 14,000 is reclaimed dyked land on the flats. Of the farmed land, around 2,900 acres are under irrigation. This is bench land about which 14,000 acres is in east Cranston, around 450 at Wynndel, 300 acres at Canyon, and a further 600 acres at Camp Lister, a World War I veteran settlement which has its own domestic system. This settlement, I understand, was hit very hard during the depression years, and was practically closed out for veterans. I gather that considerable additional irrigated land could be developed in the Valley if additional water were available, especially at Canyon where the West Kootenay Power Company has a dam on Goat River (a tributary of the Kootenay) and controls the water. Most irrigation is of the sprinkler system. Few use ditches in the Valley.

Of the total farmed acreage, around 11,000 acres is devoted to grain production, 2,000 to alfalfa and 3,000 to peas and beans. Tree fruits occupy nearly 1,900 acres and small fruits about 140 acres. Climatic conditions are a bit tricky. Creston lies at about 1,900 feet altitude with the surrounding hills rising to perhaps 7,000 feet. Precipitation is about 18 inches per year, of which 13 inches is rain and five inches derived from a snowfall of about 50 inches. April and August are as a rule the driest months and June the wettest. Much of the winter moisture is lost and in an occasional year such as 1948, floods and heavy rains may upset the spraying program so that apple scab becomes a menace severe enough to ruin (Turn to page 32)





I caught a glimpse of the fox, up in the crotch of a leaning sycamore. In the same instant he saw me, and slipped to the ground . . .

The Hunting Horn

Old Dewey's horn had been carved with love and patience—the thin, far sound of it came to you as strained silver across the moonlit hills

RATHER and Dewey Bingham were going to run the cross fox again. They were going to run him at dawn next morning and all on my account. For in two days I was to leave for school in Chattanooga, and I'd wheedled Father into running the cross a week earlier than they'd planned, so I wouldn't be left out of it all.

Every fall Father and Dewey would run the cross with the dogs for a day, or a night and a day. Only once each year. At all other times the cross ran free of them. But that day was the highlight of the year for everyone concerned, except Mom, who detested everything about hunting.

Father and Dewey knew just where the cross denned, what times they'd find him home, and from what direction to start running him for the best chase. And the cross knew them and the dogs just as well. Father said that fox looked forward to the fall chase as much as any of us.

The cross was no ordinary fox. His like had not been known in our hills before. He was old, well past his prime, and as smart as a treeful of owls. He's been named for a sort of saddle of dark-colored fur that spread across his rufous shoulders and down one leg—a queer thing indeed.

FOR five or six years he'd been an institution in the hills, deviling the dogs of the region and making disastrous raids on all the outlying hen yards. Rumor had it that he could not be caught, and it seemed the truth. A chase of hounds seemed only a pleasant recreation for him. Often he'd invite it, yapping insults at dogs and hunters in broad daylight from some high hilltop. He had dozens of ways of baffling pursuers among those many miles of stream-cut hills and woods.

It was late afternoon the day before the chase. Dewey was going to spend the night at our house. His two hounds, Baldy and Nell, came loping into the clearing, five or ten minutes ahead of Dewey. Usually they'd make for our big garbage can, upset it and rummage in it and then race around to all the feed pans and troughs about the place to clean up anything set out for the cats or chickens. But today I'd been waiting for them with some table scraps and pieces of corn bread, for Mom had come to hate those hounds and the trouble they made. She had no use for Dewey Bingham either, and I didn't want to risk the dogs making things harder for him. I headed them off and let them eat the truck I'd brought; then I led them off through the woods to meet Dewey.

Old Blaze would be with Dewey, of course, but Blaze never cut any capers. He never made any noise; never bothered anybody. He'd stalk along close beside Dewey, or a little behind, with an unbreakable dignity like a lion—a big dog, getting old, too big for any frolicking, part mastiff, part bloodhound. Even Mom never had anything disparaging to say about Old Blaze. He wasn't fast, but he was the best trailer, the grimmest fighter and had the coldest nose in all the Cane River country.

I ran with the dogs along the river trail until I sighted Dewey coming. I was just fifteen and I was on fire with an almost intolerable excitement over the coming hunt. But I slowed to a walk and I was quiet, almost grave, when Dewey came up. For Dewey and Old Blaze were heroic figures to me, the dog no less than the man. Perhaps more. There were tales all up and down the river about Blaze and his achievements.

As I greeted Dewey, I put a hand on Blaze's great head, where the tan and brindle blaze mark ran from the broad dome across his muzzle. It wasn't a pat—you'd never think of patting a dog like Blaze—just a touch of contact; then I fell in abreast of Dewey, keeping some distance between us so I wouldn't be walking in front of Blaze. You'd no more have ignored Blaze or turned your back on him than you would another human being.

Dewey was on his good behavior that day. He hadn't more than a drink or two of whiskey in him, I could see. When we came into the barnyard, he quieted his hounds to make a good effect, his keen blue eyes peeled nervously for sight of Mom. Three inches over six feet Dewey stood and he was the fear of all the Cane River settlements on his brawly nights, but the Lord had given him the heart of a workhorse and the mind of a child where women were, especially perky and respectable married women like Mom. He'd go mumbly and tonguehalted before the littlest of them, as if all the dark red pages of his rough and lawless bachelorhood rose up before him. But I guess there were plenty of the other kind of women that he got on with well enough, from the stories that went around. Mom sensed all that in him and disdained him the more. She didn't like him or his carousing, precarious way of life, and she hated to have Father and me spend time with him. She held that any decent man was duty bound to woman and the home.

I had gotten all the feed pans out of the way and put a tight lid over the slop pail, so things went off all right. Mom didn't come out, but Father had seen us coming and strode up from the yam field. We installed Dewey and his gear on the porch cot before Mom knew anything about it. He always slept on the porch on these occasions. He'd never sleep in a bedroom of hers, Mom declared, smelling the way he did, without we all walked over her dead body, and none of us wanted to do that, Father said.

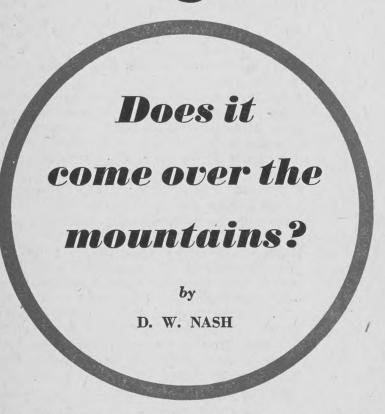
It was true Dewey did smell a bit rank most times of the year of whisky and camp smoke, of

dogs and sometimes of fish, of coon and weasel in trapping season, and always sweetish Brown Mule eating tobacco. But in those years he was, to me, everything a real man (Turn to page 67)



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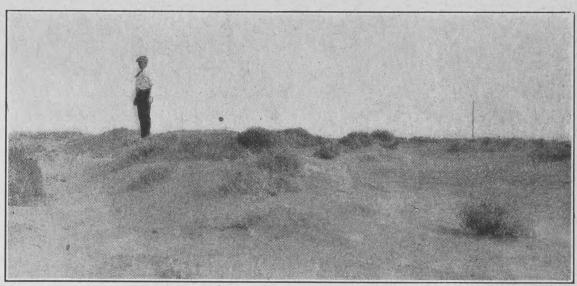
Drought--



AR, famine and pestilence have played a part in the story of man as far back as history is able to tell us anything about it. They are interrelated, because wars and famines breed pestilence. Famines sometimes lead to war also, and often accompany it. Most famines in turn, have their origin in drought, so that if man could learn the cause of drought, he would be in a fair way to eliminate much of the tragedy accompanying three of the famous horsemen described in the Revelation of St. John the Divine.

What causes drought? The immediate reason is lack of sufficient rainfall to produce crops. Of course. But what causes that? Why, if it rains bountifully one year, doesn't it rain enough to produce at least a fair yield the next? Why can the province of Saskatchewan, for example, produce more than 300 million bushels of wheat in one year and in another year less than 50 million bushels, when neither diseases nor pests are the causes of the low yield and when any difference in acreage seeded cannot begin to account for the facts? Why, in the same year that Saskatchewan had her record low yield, did Manitoba have a bumper crop? Why does Alberta, lying just east of the Rocky Mountains, sometimes have a very low yield, while there is plenty of rain falling on the other side of the Rockies? Why do we have periods lasting for several years when crops are generally good year after year, and other periods, as in the Thirties, when crops may be so poor that livestock must be sold off for whatever they will bring, simply because enough feed cannot be grown to keep them alive?

The fact is that no one knows all of the answers. Science-in this instance meteorology-hasn't had time to provide the necessary facts. Moreover, being human, meteorologists do not always agree with each other. There are some who say that climate is merely average weather and all one can do is to chart all of the details obtainable, forecast for perhaps three days ahead on the basis of these observable details, and accept as our climate what these details average out at. On the other hand there are other meteorologists who say that climate is as changeable as weather and that every important difference between the climate and weather of one year and that of another must come from the sun. They argue that the differences in the amount of heat radiated from the sun account basically for the differences in our weather and are the real



[Courtesy Scott Experimental Station.

A combination of soil drifting and Russian thistle in the 30's north of Kincaid, Sask.

reason why March, for example, may be quite warm one year and quite cool in the next.

I'm ight be a good idea though, before we try to determine the cause of drought, to define it. Can you recognize a drought when you see it? Are you sure? All right, then, on what day did the drought of the Thirties begin? Did you—or anyone else—know that this was the beginning of a drought? Last fall, over a large part of the prairies, the weather at harvest time was wonderful.

The sun shone day after day and there was no rain to slow up the work. The harvest came off in record time and the soil went into winter so dry that in places there was little if any moisture to freeze. When the spring thaw came the snow seemed to melt into the ground instead of running off the frozen surface. Was there a drought last

revealed 70 such droughts in 33 years. Some of these so-called droughts were not droughts at all, but the facts also showed that if the definition had been made more rigid, some real droughts would have been missed. It appears that it is the distribution of rainfall throughout a period, the amount of rainfall preceding the drought period, and the relation of actual rainfall to the normal amount for the season, which seems to determine the severity of a drought. Rainfall that would represent the most severe drought conditions ever experienced in Ontario, would probably produce an average crop in Saskatchewan. The bumper crop of 1942 followed a dry fall and spring. The big crop followed an ideal distribution of rainfall during the growing season. The big crop of 1928 followed a very wet fall in 1927 in Saskatchewan, while that of 1915 was very like that of 1942.

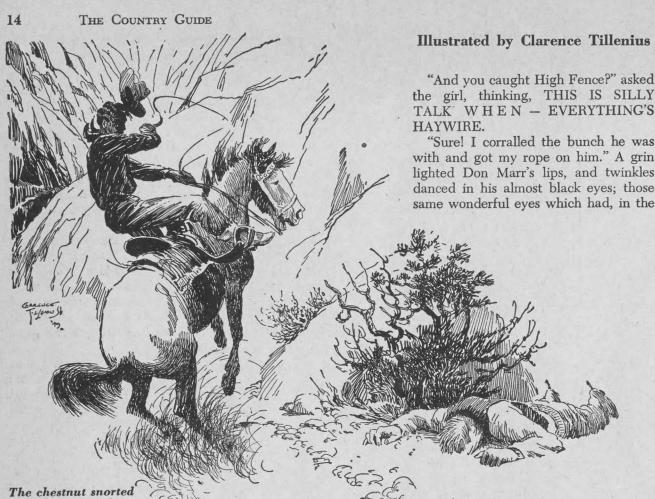
Well, then, what causes drought? Ivan Ray Tannehill, an official of the U.S. Weather Bureau

and for more than thirty years a student of variations in rainfall, has an answer in his book "Drought: Its Causes and Effect" (Princeton University Press, 1947). Nevertheless, he is careful to make it clear that he is not accounting for droughts in Asia, Africa, or other places where they are common, or even for local droughts in any part of North America. He claims only to have a specific and rational explanation of the causes of deficient rainfall in the great mid-continental plains of North America of which the major portions of the prairie provinces of Canada represent the northern part. He thinks in terms of national rainfall, rather than of the rainfall in small areas, because only in this way, he argues, is it possible to arrive at basic causes. The book is also confined almost entirely to drought in the United States, though earlier there are several fascinating chapters about the problem of drought, its history and consequences, in different times and places. Here, then, in capsule form, is author Tannehill's answer to the question of drought.

Soil drifting between Cadillac and Kincaid, Sask., August, 1931. The figure in the ditch is J. G. Taggart, now Dominion deputy minister of agriculture (see page 7).

fall? Isn't it a fact that the first rainless day is as much a part of, and contributes as much to the drought period as the last, and that we cannot recognize a drought until its effects threaten to become serious?

Even the meteorologists have not been able to define a drought scientifically. They have made many attempts to base a definition of drought on rainfall, but without success. One study in Arkansas used as a basis fifteen days without rain and ALL the moisture necessary to provide rain and snow on the land areas of the earth comes from the oceans, which occupy a much larger proportion of the earth's surface than does land. All the power required for the lifting of this moisture from the oceans and distributing it over land and sea comes from the sun, ninety million miles away from us. We receive only the tiniest fraction of the total energy it radiates, but such as it is, it is enough to power the machine which (Turn to page 62)



PART II

and wheeled about

so quickly that Don was almost thrown

T eleven o'clock of this same morning, Annette Foster lighted a fire in the kitchen stove on Slash F and mechanically began to start a meal. Of the party which had visited Cross M, Curly Bent had gone to find Timberline Johnson; Claude Ormond had said it was imperative that he ride to the 2Z ranch, eight miles south of Cross M, to see the owner, Dell Scarber, on a business matter. Sheriff Taggart and his prisoner had taken the road to Elkmont, followed at a more leisurely pace by Foster and Annette, who had returned to Slash F.

Here Jim Foster had immediately taken to his bed, saying to his daughter, "This rotten business has made me plumb sick. I feel like a mule had let go with both hind feet and hit me right in the belly . . . You ain't happy neither."

"Oh, I'm miserable, daddy. Of course the money has been recovered so we won't go broke, but-" Tears had choked her voice and blinded her eyes.

PARING potatoes now for the noon meal, she recalled that never in the fourteen years Curly had worked on Slash F had she seen the sawed-off cowboy so dejected, so glum. However, he had promised to report to her after he talked with Bill Sloan and old Timberline. So when Annette heard a horse approaching, she supposed it was Curly's mount. Not until a tall figure darkened the kitchen doorway did she look up.

The paring knife dropped from her fingers; the pan of potatoes slid off her lap and spilled across the floor. She came to her feet and then stood as if frozen, staring at the tall, big-shouldered, rugged and dark-featured young man who had flipped off his hat and was smiling down at her.

"Don!" she whispered. "Don!"

Donald Marr crossed the room in three steps. He tipped up her head and bent to look into her eyes. "Annette, you've turned white! And you're shaking. Shaking as if you have a chill. I didn't mean to scare you. Gosh, I'm sorry! I only meant to surprise-"

"And is it a surprise!" said Annette, low and huskily, "after what happened last night and this

morning.'

"Sit down, dear." He pushed her back into the chair, squatted in front of her and slanted his blackhaired head to one side, regarding her with tender solicitude, "Now, what has happened? I've been up on Pole Mountain to get a horse. That wild horse, Annette, that I named 'High Fence'. Remember him? A chestnut pippin. He'd jumped out of the pasture, but I wanted to have that horse to rideto ride out of the country, Annette."

the girl, thinking, THIS IS SILLY TALK WHEN - EVERYTHING'S

with and got my rope on him." A grin lighted Don Marr's lips, and twinkles danced in his almost black eyes; those same wonderful eyes which had, in the

> He shook his head stubbornly, and the silence drew out for thirty seconds before she said gently, "Women have always shared men's troubles. It'll do you good to get this something off your chest, Don. Perhaps, too, I know more than you realize about your quarrel with John Marr." "Eumn? He'd keep everything bottled up inside him. So how can you know-?" "But he didn't keep everything bottled up inside him. So how can you believe he had lied to you?" Donald Marr jerked his head back as if cold water had been dashed in his face. "Annette, you

tunate," Don tried to speak lightly, "when I did

shivering. What if Don had been killed? She didn't

want to think of that. "Did his horse tell you anything, Don?" she asked practically.

pulled loose and skeedaddled. I never saw it." He

spread his hands in a gesture of dismissal. "Mystery!

Why did an unknown hard-case try to murder me?

. . . But I didn't mean to talk about me. What has

THE girl said all in one breath, "John Marr turned those black bulls on the range and—" she stopped, suddenly recalling things which Jim Foster had belatedly told her at midnight last night. "Don, did your father tell you he didn't do that?"

A flush lifted to the young man's forehead; his lean, dark face tightened. "I'd rather not talk about

"I found where he had left his horse. But it had

Annette's eyes were wide. She could not help

want to ask him what was the big idea."

upset you so terribly, Annette?"

she asked tautly.

"Not even to me?"

it, Annette."



past, always fascinated Annette Foster. "But I had no intention of leaving without saying goodbye to you. And here I am . . . Glad to see me, partner?"

"Yes . . . That is, I don't know." She was glad to see him, and her heart and pulses and nerves were simply crazy. But between them now lay a river that could not be bridged.

"You don't know!" Don reached for her right hand and held it tight. "Annette, what is the matter? Oho! You've heard I had a row with my dad. But now, just because I'll never inherit Cross M, and because I've hit out on my own and I haven't a red cent, that wouldn't turn a girl like you against

"Don, did you just come down from the mountains? Just this morning?"

"Yes. I rode around Cross M and-"

"You haven't seen Timberline? Or Curly Bent? You haven't been to town to get the news?'

"Haven't seen Timberline or Curly. Haven't been near Elkmont . . . Except for a skulking drygulcher who tried to shoot me on Pole Mountain, I haven't seen anybody since I left the ranch afternoon of day before yesterday."

"A drygulcher tried to shoot you, Don! Who was he? Why'd he try to shoot you?"

"I don't know. I wish I did . . . Dad was in a black temper when we quarrelled, yet he wouldn't set a killer on my trail. I'd never seen this buzzard before. He ambushed me, fired twice without saying one word, and I killed him. Which was unforand I have agreed that the feud between Cross M and Slash F was uncalled for, just plain silly, and we had hoped to end it. That hope has now been exploded, and John Clayton Marr's to blame for it."

Annette bent forward and reached out her left hand to rumple Don's black hair as he sat facing her on the floor. "You're admitting he is definitely in the wrong?"

"I'm not dodging the issue. We argued about those darned black bulls, Dad and I, from the day he bought them, and he had promised me he'd keep 'em under fence, his idea being to pick out a hundred-odd Cross M heifers and start a black herd distinctly apart from the Hereford cattle both Cross M and Slash F are now raising.

"At least that's what he said." Don's voice turned bitter. "What he did was to sneak those Angus bulls out onto the range. I say 'sneak' because he did it in the night, unknown to me or to anybody else. I saw the pasture was empty and, passing over our father-son fight, I'm all through on Cross M and I'm leaving this neck of the woods."

DONALD MARR hunched his shoulders and lifted himself easily to his feet. "Darn it all!" he exploded. "If John Marr was any other man I'd stay right here and help Jim Foster and you bring him to time . . . What has Jim Foster done so far, Annette?'

The girl was also on her feet. "Don, I can't believe your father broke his word to you, nor yet that he lied. It isn't like him, at all, not if he's in his right mind . . . Now, there's something awfully queer going on on this range, and the more I puzzle about its funny angles the queerer it gets."

"Annette, you're all upset again, and almost unstrung!" the man cried. "What's so darned queer?"

"You'll be worse upset than I am in a minute. You can't leave the country, run out on me, and leave me to fight this thing alone. Well, of course Curly and Claude Ormond are helping me-that is, us Fosters. But it's up to you, Don Marr, to get to the bottom of this, to find out what's haywire!"

Don caught her by both shoulders and spun her around to face him. "Loving you as I now realize I do, Annette, I'll stay and do anything I canexcept fight my own father. Now please steady down. Why are you so wrought up?"

Annette's words tumbled over one another as she told the young man everything that had happened during his absence. Concluding her account, she added, "And Sheriff Taggart believes that you helped John Marr to rob my father!"

THIRTY minutes later Don Marr was riding a beautiful, high-lifed and very skittish horse away from Slash F ranch. "High Fence" was a horse in a thousand, a horse no average puncher could have broken to ride, and now that he had been running out with the wild bunch once again for some months, Don had to watch him every moment or he'd find himself holding down a small piece of ground instead of his saddle.

The cowboy was heading to Elkmont to see his father. His parting words to Annette had been, "If he tells me he robbed your dad, I'll believe it. But not before . . . Keep a stiff upper lip, dear. Something's all haywire, and how! We've got to

smoke out that something."

Approximately seven miles along the road, the big chestnut horse gave voice to a snort and whirled right-about-face so quickly he almost lost his rider. Mad clear through, Don used force to bring High Fence round about, and then he saw the reason for the chestnut's violent behavior. Beside the road, partly screened by a bush, lay the body of a man!

Don retreated for fifty yards, snubbed High Fence to a pine, and returned on foot. The body was that of Sheriff Ed Taggart. He had been shot three times in the back at close range, and his holster was empty, which made it look as if the murderer had jerked the weapon free and had killed the lawman with it.

Recalling everything that Annette had said, Don looked for the cash Taggart had been taking back to Elkmont. It was gone. Gone also were the two horses, one of which had been ridden by the sheriff and the other by John Marr.

SHOCKED numb by the stark horror of what seemed to have happened here, Don Marr got hold of himself and began to "cut for sign." Timberline Johnson, the old-timer of Cross M, had taught the young man many things about this art. For Timberline, frontier trapper, army scout, miner and freighter and cowpuncher, had helped to raise Don Marr, and had taken as much pride in the boy as if he'd been his own son.

Don now put to good use the training Timberline had knocked into his head. He was not so expert as the old master, who could-so he claimed -track a moccasin-shod Indian across a black lava bed. But Don was still far, far better than the average cowhand on tracks and reading trail sign.

The "sign," which was easily found and easily read, indicated that two horsemen, John Marr and the sheriff, of course, had come riding slowly along the road, heading toward Elkmont. At a point thirty-odd feet from where Taggart's body lay, the horse tracks showed that something had happened. Presumably, Marr had snatched the sheriff's sixshooter and had opened fire. Thereupon Taggart's horse had lunged ahead and Taggart had fallen from his saddle, and after running onward for a short distance, his mount had stopped. Apparently, the man who was riding the other horse-and it must have been John Marr-had caught Taggart's horse without dismounting, and had continued along the road.

Don Marr returns to Foster's ranch and learns from Annette the stirring events which had taken place during his absence. A new mystery is added by the attack on Sheriff Ed Taggart

Considering, however, that the wallet was missing, Don searched for footprints near Taggart's body, and he scratched his head with baffled chagrin. Probably old Timberline could tell in a few moments whether or not there were such marks. But Don was stumped.

Following the plain tracks left by the two horses, he moved on along the road to a point where they turned left off the trail to the north, thus leading into the rough and wooded trackless hills. Realizing it would be almost impossible to follow this sign on horseback, Don continued to work on foot.

WITHIN a quarter of a mile he found where the two horses had topped out on a windswept, rocky ridge. But there he lost the trail. It was two full hours later when he picked it up again. This he had accomplished by circling in ever-widening circles the point where all trace of the hoof marks had apparently vanished.

At least a mile south of the main road he crosscut that same pair of horse tracks, and this time the hoof marks were pointing south by west. Too highly keyed to feel either hunger or weariness, Don continued to trail the horses. Three different times he lost the trail again, yet succeeded in finding it each time, before at last he saw that the two horses were definitely heading into the Nought 9

And that, Don thought, was most peculiar, if John Marr had killed Taggart and if John Marr had been acting of his own free will in making this ride. For so far as Don knew, his father wasn't acquainted with Sheppard, the man who had recently bought the Nought 9.

Don had never met Frank Sheppard either. The ranch was just a two-bit spread, hidden away among the hills, and pretty well isolated, and when he had heard of the deal, Don had wondered how anybody expected to make a living from it.

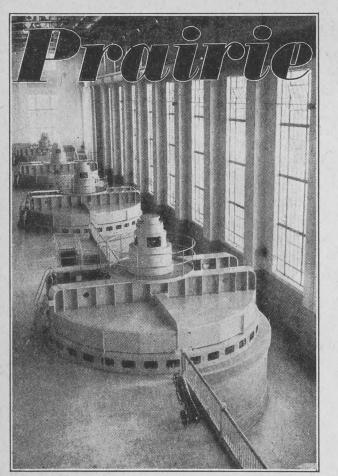
Suddenly aware that his feet were hot and swollen and terribly sore, Don climbed a ridge to the east of the ranch buildings to have a look-see before showing himself openly. The summer afternoon was almost gone, and the slanting sun rays were in his eyes as he paused at the edge of cedars and gazed

into the narrow gulch below him.

There was a solidly-built log cabin standing some thirty yards from a heavy thicket of pines, and below the cabin, farther down along the small creek, was a tumbledown shed and a new corral. Two saddled horses were tied to this corral, and still farther downstream were a dozen more loose horses. The smell of wood smoke lifting from the cabin's stovepipe came up to greet Don, and the same vagrant wind which carried the smoke brought the aroma of coffee and hot bread and sizzling

Don crinkled his nose. Gosh! but he was hungry. But grub must wait until-his (Turn to page 90)





Four new vertical turbines, installed at Slave Falls on the Winnipeg River to bring the plant up to 96,000 horsepower capacity.

T is a great day when lights are turned on in the farmyard. Many parts of the prairies can look forward to cheap hydro power in the future—some have it now. The development of our hydro resources must be slow to be efficient but the potential is here and the time will come.

Canada is second only to the United States in total horsepower of hydro-electric energy developed to date. She stands fifth in world hydro resources and is the leader in kilowatt-hour consumption per capita. The potential resources of the provinces are concentrated in Ontario and Quebec; Manitoba comes third, British Columbia fourth and Saskatchewan and Alberta follow in that order.

Waterpower to turn electrical generators is obtained by allowing a "head" of water to flow

Hydro Power

R. G. MARTIN

Hydro development is still in its infant stages

down through turbines. The amount of power thus obtained at any site is dependent upon the head—or distance through which the water falls, and the amount of water which is available to do the work. It is also important that the water be available at appropriate times since the demands for energy are very flexible. This aspect of generation calls for control of the water-flow and storage of the surplus for periods of high power demand or low water head.

The most significant water supplies in western Canada come from the eastern watershed of the Rockies. Numerous mountain streams find their way into the channels of the Athabaska, North Saskatchewan, and South Saskatchewan Rivers. This supply is augmented by some flow from south of the International Border in Alberta and Saskatchewan. Precipitation over the whole area is low and evaporation losses are high. Some surface run-off from local features such as the Cypress Hills and the Duck Mountain area provide seasonal freshets which are of little value except where storage basins are at hand to hold the water for later release.

THE great plains region is generally only gently sloping to the east and north. Considerable power potential is available in the mountain streams of Alberta but by the time this water reaches the prairie areas it has lost its force. Accumulation of the water may then be seen in the lakes of Manitoba which eventually gather in all the rivers of the plains: the Saskatchewan, the Assiniboine and the Red. The mean level of Lake Winnipeg at the mouth of the Nelson River is 713 feet above sea level. This provides another source of power—at the end of the long, flat rivers of the prairies.

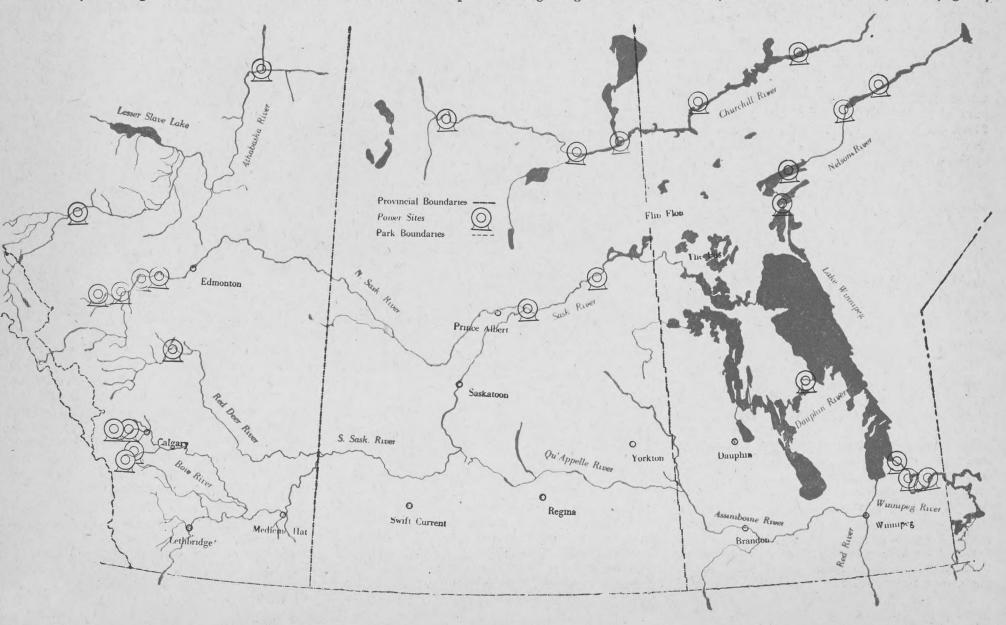
Before power can be used in providing the services and comforts we desire, it must be transmitted to the point of consumption. There is loss of power in its transmission. The losses are dependent on the amount of power flowing along the line and

on the pressure or voltage behind it. Average, practical loads can be carried efficiently over about 100 miles at 110,000 volts or 200 miles at 220,000 volts. Construction costs of heavy transmission lines are extremely high so the necessity of generating the power close to the centre of load on the system is evident. The limits to practical transmission distances are likely to be extended in the near future. In 1946, Sweden approved a plan to build a 300-mile line to carry power at 380,000 volts. Difficulty was experienced in obtaining the special equipment but they now hope to complete the line in 1951. The Tidd project in the United States is being built to investigate an even higher potential. If satisfactory results are obtained, it is planned to build a 500-mile line south from Pittsburgh to transmit at 500,000 volts. Future developments may greatly alter our power situation in western Canada and make practical the development of sites in the north where the potential is plentiful but at present too far from the load.

Since the important rivers of the prairies flow through three provinces, it is natural that each claims a share in developing the use of the water. Many demands are placed against it for use in irrigation work. Alberta has developed this considerably. In 15 major irrigation schemes she has brought 719,000 acres under irrigation at a cost of about \$35 million. Construction has also begun on the St. Mary-Milk River project which will bring an additional 393,000 acres into irrigation farming.

Saskatchewan has some irrigable land in the south-westerly corner of the province. This does not interfere with our hydro power generation to a very large degree as this area is in a water shed which runs into streams south of the International Boundary and eventually into the Gulf of Mexico.

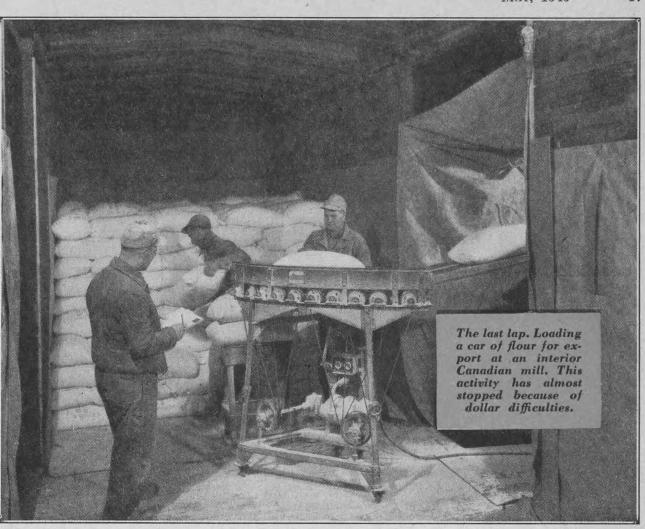
The prospects of developing a large irrigation scheme on the Saskatchewan River, south of Saskatoon, has aroused considerable (*Turn to page 54*)



THE World Wheat Wheat Agreement

by PAUL FARNALLS

After three attempts the principal exporting and importing nations agree on guaranteed quotas within a given price range



In their search for economic stability the organized farmers of western Canada have long advocated the idea of long-term international commodity agreements. During the past three years three well organized attempts have been made by some of the nations concerned in wheat trading to apply that idea in a practical way.

The first of these international wheat conferences was held in London in the spring of 1947 and was attended by the representatives of some 40 nations. This conference lasted about six weeks and during that time the general idea was thoroughly discussed at great length from both the exporters' and importers' points of view. As a result of these discussions certain basic principles were laid down and a text prepared which it was felt could well be taken as a model for international agreements of this nature.

In the end, price must always be the most vital element in agreements of this kind and therefore the most difficult on which to reach accord. The text of the London agreement provided for a ceiling price of \$1.80, with a descending floor starting at \$1.40, for the first year. At the last moment the delegate of the United Kingdom denounced the agreement because, in the opinion of his government "certain of the prices were excessive." Naturally it was most difficult for the exporters to understand how a price of \$1.80 could be looked on as excessive when on that very day every consumer in the world, except the British and the Canadians, were paying at least three dollars per bushel for their requirements. As the United Kingdom is by far the largest importer of wheat in the world it is obviously impossible to have a worth while agreement unless she is a party to it. The conference was therefore forced to disband without having accomplished its purpose.

In January of 1948 another conference was called in Washington which was attended by the representatives of 36 nations and after a number of weeks of negotiations agreement was reached on the basis of 500 million bushels per year for five years with a ceiling price of two dollars per bushel and floor prices starting at \$1.50 for the first year and dropping ten cents each year throughout the term of the agreement. This was signed by Canada, United States and Australia as exporters, and by 33 importers; but in many cases it had to be ratified by the legislative bodies of the various countries before it became binding on them. Mainly because it happened to be a presidential election year in the United States it became somewhat of a political

football in that country with the result that no action was taken by the United States Congress to ratify and again the agreement failed to become effective.

At the request of the Wheat Council, the United States government, in January of this year, again invited all nations interested in either the export or import of wheat to another conference in Washington. This invitation was accepted by some 57 countries, and the conference was called to order on January 26. In the two earlier conferences the importing countries were most anxious to reach agreement probably because of the excessively high prices prevailing, and a feeling that the scarcity of wheat might last for a considerable time. In the 1948 conference the importers wished to secure around 560 million bushels per year while the exporters did not feel they would be able to supply more than five hundred, and much time was spent in trying to reach an equitable and satisfactory division of the available supply.

In 1949 the demand from the importers was decidedly less keen, due in part at least to the recovery of European agriculture from the devastation of war. For example, France signed up as an importer of 35 million bushels in 1948 but came into the '49 conference as an exporter to the extent of three million bushels.

The situation was further complicated by the fact that Russia, while not participating in the earlier conferences, now came into the picture demanding 20 per cent of the total export quantities as her share. While the other exporters were very anxious that she should be a party to the agreement they could not agree that she was entitled to such a large share of the total. Her record as an exporter in the past did not at all support such a claim and it was found impossible to interest the importers in quantities that would include 450 million bushels for the three original exporters and sufficient additional to meet her demands.

In the end the other exporters agreed that she should have 50 million bushels as her share, but she came back with a demand for 75 million as her last word, which forced the conference to proceed without her. While there is no doubt but that she was asking for an excessive share of the market, and the offer made by the other exporters was, in effect, an offer to surrender to her, markets in which they had long been well established, and more generous than could be at all justified by the facts of the case, one must, in all fairness, say that apart from

this the conduct of the members of her delegation was above criticism. They attended the sessions promptly and faithfully and took an active part in working out the details of the agreement text. When it was found impossible to find a basis on which she could participate they withdrew as active members but continued to attend as observers.

THE Argentine was represented at both the London and 1949 Washington conferences by observers but declined to become a party to the agreement. Uruguay participated in the 1949 conference as an exporter of something less than two million bushels.

The situation at present is, very briefly as follows: Subject in some cases to ratification by their legislative bodies, 37 importing countries have agreed to purchase from the agreement exporters, 456,283,-389 bushels of wheat each year for the next four years, at a price not less than \$1.50 per bushel the first year, \$1.40 the second, \$1.30 the third and \$1.20 the fourth year. Also subject to ratification, in some instances, five exporting countries have agreed to sell to the importing countries each year for the next four years, the following quantities at not more than \$1.80 per bushel: Canada, 203,069,-635; United States, 168,069,635; Australia, 80,000,-000; France, 3,306,934, and Uruguay, 1,837,185 bushels or a total of 456,283,389 bushels. Provision is also made for the completion within the agreement of contracts entered into prior to its coming into force, irrespective of price, should both the exporting and importing countries concerned so

Under the wheat agreement floor and ceiling prices have been agreed upon for certain fixed quantities of wheat for the next four years. Within the range of those prices trading will be entirely free and may be carried on either by private trade or government agencies. In the free markets of the United States when the market price is above the agreement ceiling the government will be forced to purchase wheat at the market price at the expense of the taxpayer to make good its agreement obligation. In those countries where the government has a monopoly of wheat marketing the loss in such cases will no doubt be borne by the producer.

The agreement is to be administered by a wheat council upon which all participating countries may have representation and provision is made in the text for dealing with the infinite variety of situations which may arise in the working out of such an extensive program. (Turn to page 74)



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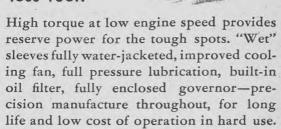
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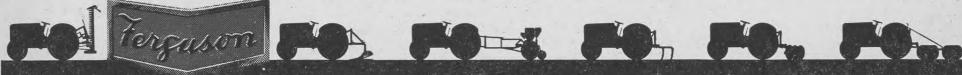
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Election Time In B.C.

Two one-act plays in which some actors change masks

by CHAS. L. SHAW

HEN British Columbians go to the polls in their provincial contest, June 15, the one fundamental issue before them will be Capitalism versus Socialism—whether the province is to continue under the administration of a coalition committed to the free enterprise system or the C.C.F. party, which has made it quite clear that it favors gradual conversion to state control of industry.

With a federal election coming up, too, the British Columbia voter faces a rather complicated situation, for when the Liberals and Conservatives appear on the provincial election platform they will be thinking and uttering the nicest possible things about each other, whereas in the federal hustings the same speakers may conceivably be throwing brickbats back and forth in an effort to buoy the chances of Louis St. Laurent and George Drew, respectively.

There is no telling how British Columbians may vote federally. The Prime Minister was recently given a triumphal reception and the fact that it was his first official visit to the coast may have had something to do with it. Colonel Drew had a flattering welcome, too, when he visited British Columbia a few months ago. It will be an interesting battle, and in any event there will be more politics in the atmosphere west of the Rockies during the coming weeks than there has been for years and years.

THE provincial election will be different from its predecessors in that 25,000 native Indians and Japanese Canadians will have the electoral privilege for the first time. A couple of years ago Chinese and East Indian residents of the province were given this authority, and the legislature at its recent session extended the franchise to native Indians and Japanese. As there will be more than 600,000 British Columbians altogether eligible to vote, a much larger number than ever before, it is unlikely that the racial vote will be much of a factor in the final counting.

The Japanese, incidentally, are now legally entitled to return to the coastal area of British Columbia if they choose. Until April 1 they had been compelled to remain east of the Cascades as the result of a seemingly too prolonged extension of wartime security regulations. Japanese were able to return to the coast in the United States soon after the return of peace, but the Canadian government, advised by British Columbia political advisors, was not so lenient.

When the Japanese were first evacuated from the coast it was Mackenzie King's hope that eventually they would be satisfactorily dispersed throughout Canada and would not wish to return in large numbers to congregate in one section on the coast, as they had before Pearl Harbor. It looks as though this hope has been fulfilled, for a great majority of the Japanese in Canada have found agreeable employment in eastern British Columbia, on the prairies, or in the east.

Being mindful of prevailing prejudice against them on the coast, they have no desire to return to the environment to which they were accustomed before war in the Pacific. It is significant that so far only ten Japanese have applied for commercial fishing licenses in British Columbia. Before the war, Japanese virtually dominated certain phases of the fishing industry, and more than 20,000 of them lived and worked within a radius of 50 miles of Vancouver.

T this writing it doesn't look as though the fishing industry offered very profitable opportunity for anyone, because British Columbia canned salmon and herring appears to be shut out of all the important export markets it customarily enjoyed. It all goes back, of course, to the shortage of dollars in the United Kingdom and British Commonwealth countries—a fact that has harassed lumbermen and fruit growers as well as fishermen and which may indeed have serious consequences to the coast's economy if it continues for long. In the past, British Columbia has prospered because she was able to sell, at profitable prices, the output of her forests, orchards, fisheries and mines in export markets, the percentage being approximately 70 per cent. With export markets cut off completely or severely curtailed, the outlook is anything but reassuring.

However, this grim prospect has not interfered so far with the program of expansion. Nearly every industry is making large capital investments in one way or another, the most recent development being the decision of Consolidated Mining and Smelting Co., the world's largest non-ferrous metal operation in the world, to spend \$12,000,000 in modernization of its huge lead smelter in the Kootenay district. New pulp mills are being made, and there is a good chance of the Aluminum Co. of Canada spending \$100,000,000 or more on a huge plant somewhere along the coast, making use of waterpower resources now neglected. British Columbia happens to have far more potential waterpower than any other province. Ontario and Quebec have developed their hydro resources more extensively, of course, but their surplus potential is negligible compared with British Columbia's.

There was a good deal of controversy in the legislature this spring over waterpower. The government maintained that the aluminum companies would not invest in British Columbia if there was a danger of socialization of industry. The C.C.F. maintained that the aluminum company was a cartel and that in the event of C.C.F. control of government steps would be taken to have ownership of power plants revert to the crown "on an honest compensation basis." Such measures, the C.C.F. claimed, would insure that the government and the people retained control over resources that hitherto had been exploited to the advantage of big, rich corporations.

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ground. Shallow Well models (lifts of 22' or less) in capacities of 500 to 1170 gallons per hour. Deep Well units from 142 to 607 gallons per hour. Shipped fully assembled for easy installation. They are self-priming and quiet running.



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Piston type—for lifts of 22 feet or less. Pumps on both the forward and backward

strokes of the piston for smoothness and to equalize the load on the motor. Self-oiling, double-acting, self-priming. Hardened, precision - ground crankshaft runs in two large bearings, for efficiency and longer life.



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Piston type — for lifts of 22 feet or more. This pump divides the load on the piston

rod by lifting water on the upstroke and forcing it into the tank on the downstroke. Other features are: no stuffing box; self-oiling; pressure tank service; V-Belt drive. In three sizes: 5", 8" and 10", and capacities delivering from 190 to 1,600 gallons per hour to depths of 600 feet.



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News of Agriculture



It is always news when spring arrives. She heralds her arrival by putting on a beauty show of which we never tire, though it is repeated year after year.

Satisfaction Guaranteed?

THE Truman Administration at Washington, through Secretary of Agriculture Charles F. Brannan, early in April presented to the Congress of the United States, a proposal for keeping farm income at a comparatively high level, that is bound to be regarded as more or less revolutionary. In a 7,500-word statement covering 31 pages, the Secretary startled a joint session of the House and Senate Agricultural Committee by proposing to scrap the principle of parity prices in favor of parity income.

For the important non-perishable crops, such as wheat, corn, cotton and tobacco, he would use the present methods of government loans and purchases. At this writing the details are not clear as to all the means to be taken in support of farm income on these non-perishable crops. For the so-called protective foods however, meat, dairy products and other perishables, it is proposed to let prices fall in the open market to the point where consumers will buy all that may be produced, and for the governmentout of the public treasury-to guarantee to producers of such products a farm income which would be fixed at a level 25 per cent above the average of the 1939-1948 period. In other words, for the year 1950, U.S. farm income would be pegged at approximately \$26,324,000,000.

The Secretary argued that such maintenance of farm income would be in line with the public interest. The consumer would benefit by being able to purchase all such farm products at supply and demand prices. The nation would benefit to the extent that production of such products would be secured at the expense of non-perishable products which are sometimes produced in excess of demand. Because of the emphasis on production, Secretary Brannan has called the plan a "production payments" plan.

No official estimates had been made as to the cost of such a program to the U.S. Treasury. Farmers' organizations, with the exception of the National Farmers' Union had not come out in support of the administration proposal. The American Farm Bureau Federation was still supporting the Hope-Aiken Act which it believed "sound and worthy of fair trial," and which is

based on a system of flexible parity prices. The National Grange, the oldest of the farm organizations and equally influential, believed the Brannan program would give the government too much control over the U.S. farm economy. Other arguments used in the press and elsewhere against the Brannan plan were that the farmer would be subjected to the tightest government controls ever imposed, including acreage allotments, marketing quotas, marketing agreements, and soil conservation practices. Encouragement would be given to familysize farms over extensive large-scale farming, by paying subsidies only on about the first \$25,000 of annual production.

Net Farm Income

COSTS of Canadian farmers rose by \$115,000,000 last year, but the Dominion Bureau of Statistics calculates that net farm income was \$458.4 million higher than in 1947. All provinces benefited from this increase in farm business, except British Columbia which suffered very seriously from spring flood damage.

Combined net income from farm operations only, totals \$1,693.4 million. This figure is arrived at each year by first calculating the amount of cash farm income, adding to this the value of income in kind (the produce of the farm consumed on the farm) and from this total subtracting, or adding as the case may be, the value of inventory changes in the year (the difference from the previous year in the value of livestock, feed, seed, fertilizer and supplies on hand). The final total of these items gives gross farm income, from which is then deducted operating and depreciation costs. This then gives a net income figure, but in recent years when farmers have been receiving some payment from governments in the form of back payments on wheat sales, coarse grains utilization payments, prairie farm income and other items of government outlay, it has been necessary to add these payments to ordinary net income figures to get the real net income of agriculture for the

Farm net income as announced by the Dominion Bureau of Statistics, therefore, is not only the amount of money the farmer has earned during the year for his physical labor, but includes the value of produce consumed on the farm and estimated rental value of farm homes, supplementary payments made under the provision of the Prairie Farm Assistance Act, any allowance that he may have earned for his managerial ability and, in addition, any interest he receives on capital invested in land, buildings and equipment, as well as interest on working capital invested in livestock, seed grain and supplies.

The \$864.3 million of net income estimated for prairie farm operators in 1948, therefore, includes all of these items, as well as the returns the farmer received for his own physical labor and that of the unpaid members of his family.

Shooting Pollen

TN 1943 a Wapato, Washington, orchardist decided to try pollenizing his orchard trees with a shotgun. He had tried hand pollenization and found it costly and inefficient. His problem: To develop a charge which would propel the pollen to tree-top height, gently and without damage. In the spring of 1948 many apple growers in Wenatchee and Yakima Valleys used 12-gauge shotguns for shooting pollen into their trees. The shells contained a light load of slowburning powder, extra filler pads to protect the pollen cells, and a formula of one part pollen to nine parts carrying agent. Each shell contained about 2.6 million pollen grains. More than 30,000 such shells were used in the Pacific Northwest States.

Co-operative Growth

CO-OPERATIVES affiliated with the Co-operative Union of Canada in 1948, numbered 922 associations, with 628,745 members, as compared with 706 associations in 1947 including 578,495 members. The business done increased from \$418 to \$472 million. This includes business done by co-operative wholesales and central marketing co-operatives which emphasizes the fact that membership of these co-operatives in the provinces of Saskatchewan and Manitoba exceeds those of any other province in Canada.

This information was given to the Co-operative Congress recently held in Winnipeg. Saskatchewan leads all provinces with 329 member associations having 226,891 members and doing business to the extent of \$159,069,080. In Manitoba 126 member associations are affiliated with the Co-operative Union and they had 136,043 members doing a combined business of \$69,200,946. Approximately 8,000 patrons who are not members do business with these associations in Manitoba and 14,000 in Saskatchewan.

Of the associations reporting to the Union, 171 were marketing associations whose sales in 1947-48 totalled \$358.8 million. Grain and seed sales from 33 associations totalled \$240.2 million. There were 701 merchandising associations which sold \$95.8 million worth of food, clothing and home furnishings, petroleum products, feed, fertilizer, spray materials, machinery, coal, wood and building materials. In all 755 reporting associations sold \$454.6 million worth of farm and other products in Canada.

Is DDT Harmful?

RECENTLY considerable publicity in the daily press and otherwise has been given to a suggestion that the comparatively new and destructive insecticide DDT is harmful to man and animals and is responsible for the infection of humans with the "virus X" disease and for the "X" disease in cattle

First claim in this direction was made by Dr. Morton S. Biskind, New York, in the Journal of Digestive Diseases. He claimed to have found evidence of exposure to DDT in 200 cases of virus X. He also claimed that "the X disease in cattle reported to have caused serious losses among cattle in at least 26 cases, bears a remarkable resemblance to the known effects of DDT poisoning."

Hyperkeratosis, or a thickening of the skin, is one of the symptoms of X disease in cattle. A similar condition results when kerosene containing DDT is sprayed on the hide. The U.S. Food and Drug Administration quickly pointed out that this thickening also appears when kerosene without DDT is used, proving that the condition is due to kerosene and not DDT. The Food and Drug Administration was quickly joined by the United States Department of Agriculture, the United States Public Health Service and the Federal Security Agency in Washington in a statement that "there is no justification for public alarm as to the safety of the milk supply from the standpoint of DDT contamination." These agencies say that the public has been misled and unnecessarily alarmed, because the U.S.D.A. has studied the effects of DDT on dairy animals over several years. After all, said one U.S. official, "we had virus X a long time before DDT was ever heard of.

The Dominion Department of Agriculture at Ottawa also issued a statement in April to the effect that all pesticides sold in Canada come under the provision of the Pest Control Products Act, which is administered by the Department of Agriculture. The aim of the Act is to protect the farmer from buying worthless or highly dangerous preparations. "No preparation is allowed on the market," the statement says, "until it has been analyzed and approved by technical officials of the Department. If such preparations are used in accordance with instructions on the label, they will be effective for the purpose for which they are recommended and will have no detrimental effects."

The Ottawa statement also contains the following warning: "Spraying dairy barns with DDT, particularly with oil solution, should be done when the cattle are not in their stalls. Special care should be taken to see that milk and cream cans and milking machines are not touched by the spray. DDT in oil solutions may be absorbed through the skin of the animal and will be found in the milk and the animal fat. There has been little or no difficulty in spraying cattle themselves with DDT, when wettable powders are used in water, since the water spray does not penetrate the skin, and the residue is not absorbed by the tissues. Even with water spray, care should be taken to see that cooking utensils do not come in direct contact with the spray."



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Get It At A Glance

Short Items Of Interest From Here and There

BRITAIN would like to have available about 146 pounds of meat per person per year, of which she can at present produce only 38 pounds. She would also like six billion eggs per year, and nutritionists would like to see an increase of 25 per cent in milk production.

MEAT consumption in Canada for 1948 is now estimated by the Dominion Bureau of Statistics at 135.3 pounds per capita based on cold carcass weight. This compares with 118.4 pounds per capita for the years 1935-39 and with the high of 146 pounds during each of two years 1946 and 1947. Last year Canadians each consumed 58 pounds of beef, 10.9 pounds of veal, 3.5 pounds of mutton and lamb, 54.2 pounds pork, 2.7 pounds canned meat and six pounds of offal.

A T the time of the census of Newfoundland in 1945, there were 28,009 farmers or stock raisers, of whom 22 were women. In addition there were 27 farm managers and foremen and 13,085 farm laborers. The total of all gainfully occupied persons 14 years of age and over was 112,508, of whom 16,508 were females.

FAR Walla Walla, Washington, farmers in the local soil conservation districts seeded 10,000 acres to sweet clover for green manuring, by airplane. During a thirty day period ending in late March they distributed nearly 100,000 pounds of clover seed by air, using a flag man at each end of a field counting on a seed spread of 70 feet with a 20-foot lap and moving a distance of 30 feet across the field after each flight. When conditions were right as to wind the pilot could hit a hat on the ground with some eight to 17 seeds on each flight.

THE first direct shipment of Canadian cattle to Europe by air left Malton airport near Toronto on March 28. The shipment consisted of seven purebred Holstein bulls and five purebred heifers. They were accompanied by two representatives of the Holstein-Friesian Association of Canada, who will study the market for Canadian Holsteins in Italy, on invitation of the president of the Italian Livestock Association.

RANCE and Britain have recently arranged an agreement whereby France will export meat and other products to Britain. In recent months French prices for pork, eggs, potatoes and vegetables have dropped substantially. The French farm organization, the Confederation General de l'Agriculture, including all aspects of the industry has asked the French government for direct representation on the official bodies which negotiate export contracts for farm products. The CGA represents not only the farmers of France itself, but those of the French Empire.

THE total assets of 217 Saskatchewan Credit Unions on December 31, 1948, amounted to \$8,346,118. Loans made during the last quarter of 1948 totalled \$1,980,879, bringing the total of loans since the first Credit Union was organized in the province to \$20,443,207.

CATTLE numbers in Canada declined 7.7 per cent from December 1, 1947, to December 1, 1948, at which time the cattle population was 8,251,000. Milk cows declined 3.5 per cent.

In 1947 preliminary figures indicate that Canadian farmers bought \$167 million worth of farm implements and equipment. Saskatchewan bought 27 per cent of the total, Ontario 23 per cent, Alberta 22 per cent and Manitoba 13.5 per cent. The sale of repair parts alone amounted to \$26.2 million, of which Saskatchewan farmers purchased slightly over one-third.

THERE were only 1,322,000 sheep and lambs on Canadian farms on December 1, 1948, which represents a decline of 16.7 per cent in one year. Heaviest declines occurred in Quebec and Manitoba.

THE Dominion Government will provide \$1,152,000 for development work during 1949-50 by the Eastern Rockies Forest Conservation Board. This board was established by Act of Parliament in 1947, for the conservation and development of forest resources and the protection of watersheds on the eastern slopes of the Rocky Mountains.

CATTLE numbers are now at the lowest point since 1941, having risen from 8,249,000 in that year to 10,258,000 in 1944, and declined again to 8,251,000 at the end of 1948.

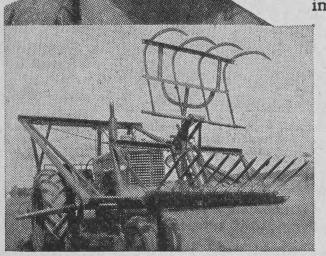
DURING the four years ending in 1952 Britain plans to spend £450,000,000 on agriculture, about half of which will be for machinery, which will need about £50,000,000 per year. Britain had about 50,000 tractors in 1939 and has more than 250,000 now. She plans to increase the number to approximately 300,000.

A GREEMENT on the principle of a floor price program for agricultural products in Canada was obtained at the annual meeting of the Canadian Federation of Agriculture held at Saskatoon, Saskatchewan, January 25 and 26. This was coupled with general agreement on a formula presented by Dr. E. C. Hope, economist of the Federation, for the establishment of parity prices, and acceptance of the principle of somewhat less than parity for a floor price basis.

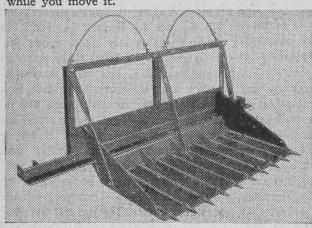
THE new president of The Agri-L cultural Institute of Canada for the year 1949-50, elected by mail ballot of the 2,500 agricultural graduate members, is Dr. F. J. Greaney, Winnipeg. He will assume office at the annual convention of the Institute to be held at Vancouver, June 20-24. Dr. Greaney is a graduate of O.A.C., Guelph, and later took post-graduate work at the University of Minnesota. For many years he was associated with the Dominion Laboratory of Plant Pathology, Winnipeg, and since 1946 has been Director, Line Elevators Farm Service. D. A. Brown, assistant superintendent, Dominion Experimental Farm, Brandon, Manitoba, was also elected a director of the Institute for two years.

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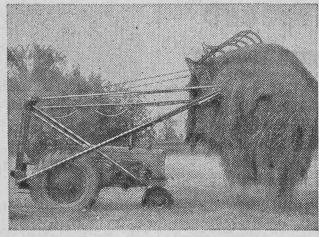
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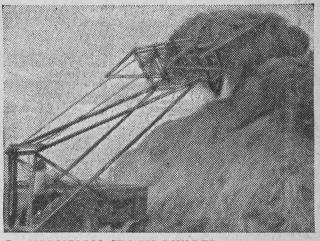
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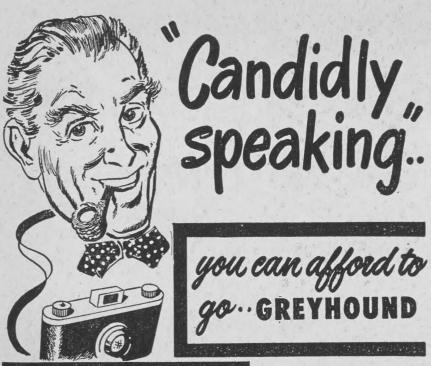


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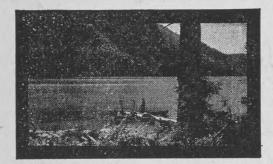


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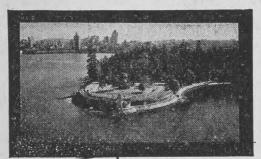




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LIVESTOCK



Sheep-shearers should be well trained. Here a novice tries his hand under supervision.

Irrigation For Feed Crops

"It is hard to maintain a farm without putting something back," says Albert Johnson

Alberta, and his brother C. O. Johnson, at Scandia, farm together and between them operate 15,700 acres. This figure, however, must be split up to make sense. The 15,000 acres which C. O. handles is principally range land and the 700 acres on which Albert lives is farm land and 500 acres of it is irrigated. Basically, the whole proposition is founded on market cattle.

"Livestock is the back bone of any country," said Albert, who is a farmer because he likes it. "I am well satisfied with the country. The best part of the business here, on this place, is that everything made is put back into the farm to build it up. In the early years we tried straight grain farming, but the weeds became so serious that we were forced into alfalfa. This meant lots of work, but it keeps the land up. With plenty of alfalfa we either had to sell it off the land or feed it here. From 1935 to 1942 no wheat was grown for sale at all. It is hard to maintain a farm without putting something back and it takes livestock to do that.'

Albert and his brother have been in the Eastern Irrigation District since 1919, when he was 18 years old. He tried railroading and didn't like it. Since he gave that up the brothers have stuck to farming in spite of some pretty grim years earlier on. They now run the cow herd on the range at Scandia the year round and winter the calves at Brooks. Each feeds out his own share of the market stuff, which is sold as two-year-olds weighing from 1,000 to 1,100 pounds, in March and June.

"Cattle do well on our grass," said Albert, "and we appear to be in one of the best areas for cattle, since they come off the grass fat, so much so that we could probably have beefed every cow after the calves were taken away." The brothers are members of the Bow Slope Shipping Association and were one of the first to market livestock this way, even before the C.P.R. had completed its spur line to Scandia. The

first load of hogs was shipped in a box car.

N. O. has a section of irrigated land at Scandia which is used as headquarters for the range operations. Branding and vaccination take place there because there are more corrals. This is, in fact, the older place. Albert moved up to Brooks in 1942, but since then mostly feed crops have been grown. In 1948 there were 200 acres in alfalfa, 170 acres in oats and barley and 40 acres in wheat. Some small acreages of cash crops are produced and in past years some seed crops have been grown, sometimes quite profitably. The alfalfa needs breaking up about every three years, since winter icing is occasionally very hard on this crop. Last year 60 acres was under water throughout the spring and some of it even as late as July 29.

In the winter of 1947-48, Johnson fed 170 steers, but curiously enough he didn't feed 10 tons of hay during the winter. Straw from 70 acres of canning peas was preferred by the cattle. Sometimes some cull potatoes are available. Canning-pea straw is put into stacks where it settles very tightly and is chopped out with an axe.

Mr. Johnson confessed himself more puzzled, when I saw him, than for some years. Looking ahead he found it very difficult to decide what to do. This was, of course, before the embargo was lifted on cattle going into the United States. He could sell 170 head of feeders on October 1 for 16 cents a pound. He could sell hay on the farm for \$20 a ton. Marketing was something of a gamble. His comment was, "land is cheap, but the man with ability to market his produce successfully is not common." Getting the largest return was also a matter of some importance. He said machinery on irrigated land represented the biggest investment of capital. In 1941 land investment on the farm he was operating represented about \$11,500, and machinery about \$13,000. At the time of my visit, land of course, had appreciated somewhat, but the machinery investment had gone up to

about \$25,000, primarily because a greater variety of crops needs more different kinds of machinery. Marketing problems are particularly important in an irrigation district because successful irrigation farming needs cash crops.-H.S.F.

Grain For Dairy Cows

OW much grain to feed milking cows is always a problem. Whether it will pay or not will depend on the prices of grain, hay and milk. Also since the cow is primarily useful for handling very large quantities of roughages which are cheaper feeds, the dairyman will always place the greatest emphasis on the amount and quality of roughages he is able to get a cow to eat, and depend on grain and concentrates to "balance" the ration. That is, he will try to achieve maximum milk production by adding to the roughages the necessary amount of coarse grains and concentrates to

Roughages, generally speaking, are those coarser feeds such as hay of various kinds and silage, which provide energy for the cow and make her physically fit to work. Concentrates, on the other hand, might be said to have more to do with the quality of her work. They contain higher percentages of protein which is necessary for growth of young animals, for the formation of horn and hair, and in the case of dairy cattle, for the making of milk. All dairy products are good protein foods, so that in the making of milk the balance between roughages and the higher protein concentrate feeds is essential for maximum production.

This balance can be illustrated by the fact that in the spring shortly after cows are turned out to pasture, milk production increases. Pasture is a roughage, but in the spring of the year the young grass, though lush and watery, contains a much higher proportion of protein than when it is older and the stems have grown coarser and stiffer. Nature thus provides a balanced feed, at least for that part of the summer when the grass is growing

Leguminous crops, such as alfalfa and all kinds of clovers, are higher in protein content than the grasses, so that hay from these crops when properly cured so that it will retain its green color, are better roughages for dairy cattle than almost any other; and when it is possible to feed good alfalfa hay during the winter months less grain will be required to balance the roughage part of the ration and make the maximum quantity of milk.

Selecting Gilts

THROUGH careful selection of breeding stock a swine breeder is able to improve his herd. If this is to be accomplished, E. R. Fraser, Division of Animal Husbandry, Central Experimental Farm, Ottawa, suggests that it is advisable to spend some time in making the choice of gilts to be

The first selection can be made on the basis of litter size, keeping only those gilts from good mothers, and large, uniform litters.

Next, they can be selected on the basis of growth and feeding ability. This can be judged by the condition of the litter groups during the feeding period, and the length of time taken

to reach market weight. Thrifty, good feeding litters that will market in six or seven months are considered preferable. The carcass grades of litter mates can also be considered. The selection of gilts from litters having a large proportion of Grade A carcasses will have the effect of building up carcass quality in the herd.

Finally, there can be selection on the basis of the individual quality of gilts available from good litters. Select those of good length, medium depth and full, plump hams. Lastly, gilts selected for breeding should have at least 12 and preferably 14 teats.

If all of these suggestions are combined, gilts selected for replacements in the swine herd will have desirable characteristics with respect to litter size, growth rate, feeding ability, carcass grades of litter mates, individual quality and mothering ability.

Breeding Yearling Heifers

MPORTANT field studies have been ■ made in the United States, particularly in California, on breeding beef heifers so that they will calve at two years of age, rather than at the generally accepted three-year age. Their conclusion is that it need not stunt the heifer's growth and that net returns from the herd can be increased by breeding yearlings, if great care is exercised.

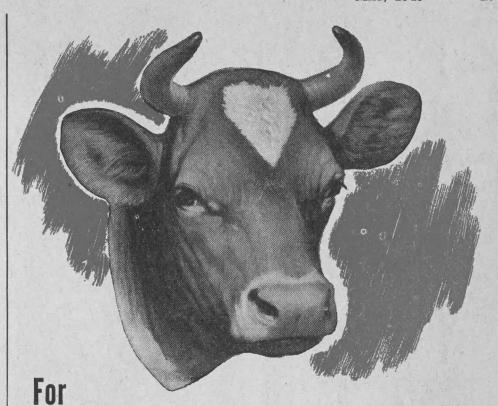
If yearling heifers cannot be well cared for, they should most certainly not be bred. When the heifers were weaned, in addition to range grass or grain stubble, they were given one pound of cottonseed cake per head per day. This was continued for about two months. They were grazed on range or given good roughage until about two months before calving, at which time they were again given a pound of cottonseed cake per head per day.

The main object was to keep the heifers in a good, strong, thrifty condition. The approximate average weight of the heifers at breeding time, as yearlings, was 625 pounds. The calves were weaned at three months of age, and at this time, the average weight of the heifers was 781 pounds. At calving time these were kept in small, convenient fields where they could be watched, and any heifer having trouble at calving time was helped.

The heifers were bred so that they would calve early. The calves were all weaned and sold as vealers at three months of age and the heifers dried up. These calves were sired by smallbodied, small-boned bulls, so that the calves were small at birth. A two-yearold heifer could be expected to have trouble dropping a large calf. On one ranch Aberdeen-Angus bulls were crossed with yearling Hereford heifers. The owner was satisfied that the heifers had less trouble at calving time, and the loss of calves and dams was reduced. The same result was observed when Hereford heifers were bred to Brahman bulls.

Data gathered from the breeding of 1,407 heifers on ranches, supplemented with results of experiments at various experimental stations, indicated that the weight of the heifers at breeding time may be more important than the

Those conducting the experiments were satisfied that early breeding led to increased meat production without an increased size of breeding herd, greater economical returns, and in-



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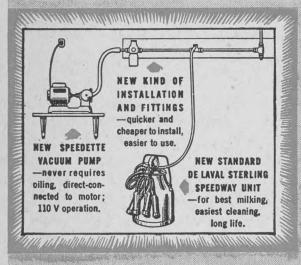
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creased size and quality of calves from the heifers as three-year-olds.

These advantages were subject to keeping heifers in a good, thrifty condition by supplementary feeding; breeding to small-bodied, small-boned bulls; weaning and vealing calves at about three months of age; giving the heifers special care and attention at calving time; and breeding so that the majority of the heifers calved early, during the months of January and February in most parts of California, and later in colder areas.

The breeder who is going to breed any heifer, large or small, to his big herd sire, and then let the heifer fend for herself, is cautioned to leave her open until she is two years old.

Pigs Per Sow

IN OUR February issue reference was made to a purebred Yorkshire sow, Townview Lass 17X, owned by D. C. Smith, Westlock, Alta., that had produced 116 weaned pigs in 10 litters. In response to our request for any authenticated record of a sow that has done as well, three readers have come forward, in each case with information relating to the prolificacy of sows now dead.

Mrs. Kosten Heldal, Westerose, Alta., gives the record of a Yorkshire sow owned by Sam Pearce of Meeting Creek, Alta., reported in the Edmonton Journal, which in 35 months between May 2, 1928 and April 2, 1931, produced 135 pigs. The size of litters ranged from 11 in the first litter to 24 in the fifth. Four of the seven

litters consisted of 21 or more pigs. The record does not indicate how many of these pigs were weaned, which was the basis of the performance by Townview Lass 17X.

Walter Clark of Greenhaulme Farm, Inchkeith, Sask., writes that he had a sow, Duchess of Inchkeith, 141266, AR 431, that produced 144 live pigs in 12 litters, the largest litter of the 12 being 16 pigs. "The sow farrowed, in all, 200 pigs," says Mr. Clark, who does not say whether any were dead at birth, or how many were weaned.

Finally, Carl Haarmann, Thorhild, Alta., who had a sow, "Lotty," that gave him 12 litters in six years, and that had one extra litter of 13 pigs years before he bought her. She had 16 teats and raised not only her first 13, but 14 pigs in each of the next 11 times farrowing. Her last litter, the 13th, was of 18 pigs in the late summer of 1941. By this time she had only 12 good teats left, so six pigs were taken from her and raised on a bottle. Thus old "Lotty," that never killed or laid on a pig, raised, herself, 179 pigs, in addition to the six of her last litter raised on a bottle. Incidentally, Mr. Haarmann says that these six pigs eventually bought the family an eight-foot tandem disc which is

Mr. Haarmann says: "In the early '40's I often had 42 little pigs at weaning time, with three brood sows. My neighbors often said, 'Are you luckyl' but I did not think so then. Now I know differently. All three sows were Yorkshire-bred and raised two litters per year."

He Switched To Milk

George Sumner made a fast, easy change to good dairy cattle

A FEW years ago George Sumner, Neepawa, Manitoba, had a fair herd of grade Shorthorns. He used the sire owned by the local breeders' club and raised better than average calves. He milked some of the cows and sold the calves. On the whole he had a fair herd of cattle.

At the present time Mr. Sumner has only one or two Shorthorns on the place, and these are being raised to market. He likes the Shorthorns well enough, but four years ago decided he would do better with a dairy herd.

A Neepawa breeder, Charlie Martin, had a good herd of Holsteins. Martin was having some trouble looking after the whole calf crop and told Sumner that if he would raise 10 of the heifer calves he could keep two of them. Also he could have the first calves from the 10 heifers and milk the dams for the first lactation. At the end of the first lactation Mr. Sumner was to return eight of the ten young cows, keeping possession of two of the cows and all of the calves. In actual practice it did not work out that way. Martin decided to go out of the dairy business and Sumner bought the cows from him, along with his bull, and some other animals from the herd. The herd grew to 25 head, and that is where it stands at the present time.

The idea at present is to build it up to about 30 head, which will allow for 15 to 20 milking cows. When this level is reached it will be possible to practise intensive culling and selection and so raise the average of the herd.

The average is not in much danger of falling. The first Holstein bull, Smith Haven Rag Apple Ivanhoe, he bought from Martin. Martin had paid a good price for the animal when it was a calf. The present herd sire is a grandson of the \$18,000 bull, Raymondale Ideal Successor and the cows are of Rag Apple breeding. Not long ago Sumner was offered \$400 each for four heifers but, thinking of long-term gain rather than short-term profit, he turned the offer down.

He sells his milk at a local plant in Neepawa. At present he is milking about 10 cows and attempts to sell around 250 pounds of milk every day in the year. The plan is to raise this level by increasing the number of cows and by raising the average level of production.

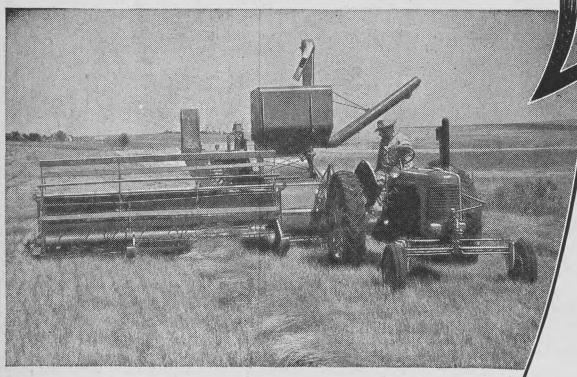
REEDING for high production is always a problem. He is attempting to get a good stand of alfalfabrome mixture, but is having some trouble in getting a catch. Last year he was short of feed. He normally feeds alfalfa, clover, flax and wild millet cut green, and as a concentrate feeds only a grain ration consisting of two-thirds oats and one-third barley.

He cuts all the oats and barley with a seven-foot power mower, with a windrower, so that if the crop is light two cuts can be dropped in one swath. The swath is picked up with the combine. As a separate operation the straw is picked up with a pick-up baler.

There are plenty of problems with the dairy cattle, but George Sumner has a good herd, he likes the breed, and he likes to have a herd as part of a general policy of soil conservation. If the herd can keep the cheques coming in and keep the soil in the fields he knows they will serve him well.



Look at the Latest.



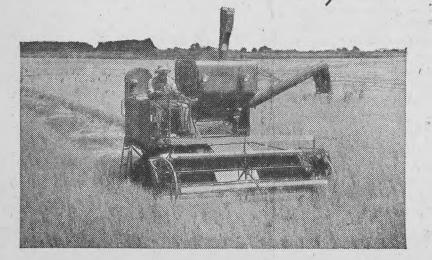
for BIG Acreage Harvest

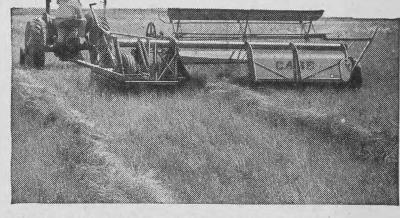
3 to 6 Acres per Hour

• Here are the combines which bring new capacity to one-man operation, new efficiency to the harvesting of large fields or heavy crops. Shown above is the new Case Model "K-2," a 12-foot machine with plenty of threshing and separating capacity. With the power-controlled header lift, one man handles the whole outfit easily from the tractor seat. New design places the cleaning shoe close to the main axle, for simpler drives and cleaner, more uniform work in rough fields.

Similar in construction is the new Case 9-foot "M-2" (at top) and the new Case Self-Propelled models in both 9 and 12-foot sizes. In all of these, you get the benefit of Case harvesting experience reaching back more than a century, plus modern design which eliminates extra weight while actually adding to capacity and to over-all field performance. This year, look first to Case for the latest in harvest machines.

With 36 travel speeds Case Self-Propelled combines can go at just the right pace for full capacity and clean work in any crop from the lightest to the heaviest and toughest.





The Case 12-foot windrower makes a windrow the right size for both fast work and fast curing. It angles the cut crop a little, and bends the stubble a little, to get good support from the stubble. While making turns the canvas stops, so there is no windrow to follow when turning with the combine.

Save... from Seedbed to Harvest

There are 77 modern Case machines. Twenty great tractors in four size ranges provide modern power for every type of dryland and irrigation farming. Case tillage implements and seeding machines match this eager power and fit Canadian conditions. Case hay machines include fractor mowers and side-delivery rakes, the famous Slicer-Baler, and a field forage harvester that is simple and fast. Besides the models shown here, Case has combines in 5 and 6-foot sizes. See your Case dealer—or write nearest branch for information on machines that interest you. J. I. Case Co., Calgary, Edmonton, Regina, Saskatoon, Winnipeg, Toronto.

CASE.

You



Hour with the Nev

That's why every farmer in the land should practice weed control lity grain that brings more money, and thus more profit to the Weeds rob farmers of a lot of mo It means a bigger yield, better farmer. And that benefits every

ay to wipe out weeds is with the new Massey-Harris Weed e man can spray up to 12 acres per hour and cover an gallons of solution. The simple, inexpensive, fast was Sprayer. With the 30-ft. size on acre thoroughly with only four

the Massey With a good quality weed cher Harris Weed Sprayer will increa See your local Massey-Harris

ilable for application of 2, 4-D and DDT. Row-crop attachments ava

enables quick refilling of tank-quick-action shut-off for stopping

specially-designed filter

handy to operator.

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a

capacity 30 acres. Also avail

first producer of commercial seed of Kentucky Blue Grass in Manitoba. The grass grows wild in Manitoba and Mr. Ploshay harvested his first crop of approximately 50,000 pounds of seed in 1942. This was largely experimental. He used a combine and after the seed was cleaned it averaged from 10 to 12 cents per pound. In more recent years he has operated on a larger scale, using modern methods, and has secured a crop of as much as 250,000 pounds of seed per year. He now operates 10 outfits.

Since the crop grows wild, it is necessary to scout the likely areas

FIELD Above: Stripped Kentucky Blue Grass in a Ploshay drying yard, prior to sacking. Frank Ploshay (centre) Below: uses a plane for scouting; left, his pilot Pete Mills, and right, Gordon Ducharme, tractor operator.

Kentucky Blue Grass Seed

Manitoba supplies all of the commercial seed of this crop produced in Canada

'ANITOBA is the only province

in Canada to produce Ken-

tucky Blue Grass seed com-

mercially. As a forage plant Kentucky

Blue Grass is widely known in North

America and widely grown, though it

is of European origin. It is not much

recommended in any part of the prairie provinces, except where there

is plenty of rainfall. In eastern Can-

ada it is the dominant species in natural or untilled pastures on soils

that are not acid. Where it does well

it is very aggressive and by means of its creeping root stalks is able to com-

pete successfully with most other

species. It is somewhat like crested

wheat grass in that it makes an

extremely rapid early growth (May

and June) and then lies dormant for the rest of the summer until it is

revived by the cooler and wetter fall

creeping rootstalks and by seed. In areas where it is highly adapted it is

seldom necessary to seed it because

sufficient volunteer plants will appear to make seeding it in pasture mixtures

unnecessary. It varies in height from six inches to three feet and the flowers,

from which it gets its distinctive

name, vary in color from a bluish-

green to violet. It does best on com-

Frank Ploshay, East Kildonan,

Manitoba, is credited with being the

paratively level meadow land.

It reproduces itself by means of its

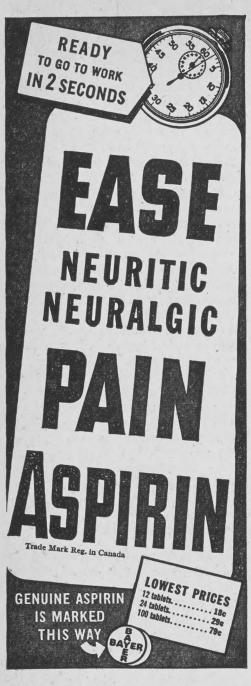
weather.

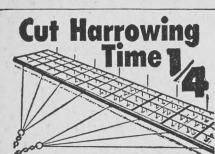
in advance and locate individual fields carrying a seed crop. This, Mr. Ploshay sometimes does by plane, since he finds that it is possible to spot Kentucky Blue Grass from the air with very little trouble. As a seed crop it is apparently able to stand severe frost and a heavy blanket of snow. The dangerous period is at the milk stage. If it is able to pass this stage successfully it will produce seed, but if damaged by frost, can still be cut for hay.

When seed harvesting begins there is no time to be lost. Strong winds will easily blow the seed into the ground. Headers are used for stripping the seed, which is then brought to a clearing yard and spread out to dry. When satisfactorily dry it is moved into rows, ready for sacking and shipping to seed houses for cleaning. Ploshay markets all his seed through the Seed Department of Manitoba Pool Elevators Limited, and it would now appear that there are a number of other Manitoba farmers who have recognized the market for this crop and are adding to the annual commercial supply.

Characteristically, Kentucky Blue Grass develops a thick, tough sod. After a few years it tends to become sod-bound and either fails to set seed or the yield is reduced so that harvesting is unprofitable. Going over it with the disc or one-way generally brings it into seed production the following year.

Two-Way Or One-Way Plow? N article in a recent issue of A British Farm Mechanization pointed out the difference which exists between our use of the term "one-way" and the meaning which is given to it in the United Kingdom. The British interpretation of a oneway is a machine which leaves all the furrows in the field turned in the same direction. These machines are also referred to in Britain as "reversible plows," "turnabout plows," or "turnwrests." On this continent we refer to





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such plows as "two-way plows" since | they are capable of turning the furrow either to the left or to the right.

The moldboard plow came to western Canada with the early settlers. It was difficult to get them to scour in heavy clay soils, which were damp and sticky, so disc plows were brought into use in these areas. Later, farmers on the plains of Saskatchewan conceived the idea of converting their disc harrows to long tillage implements capable of cultivating wide swaths of land and of turning the furrows all to the right as the machine moved down the field. To distinguish this new machine, they called it the one-way disc. It is often referred to as the "one-way disc plow," but is not to be confused with the disc plow which has larger blades with much greater concavity.

Suggests Straw-Cutter Fund

WISH to thank you for publishing my letter on straw-cutters for combines in the January issue. I would also like to thank the many farmers who have written me. They believe straw-cutters on combines would avoid burning heavy covers of straw in order to plant a second crop. I have just burned off a heavy cover of straw which if cut fine could have saved the land.

I see in your comment on Mr. J. W. Twilley's letter in the March issue that you would be pleased to see a good cutter made. You are too optimistic, however, about the possibility of removing straw. I built a barge for my M.H. self-propelled to pile oat and barley straw. I piled three years before last year and didn't succeed in getting it stacked, as the snow came just as we got done, or nearly done combining. It is just shortage of help that puts combines into this country at all, so there is no extra help to pile straw. Anyway, removing straw is only a partial solution as it leaves only the stubble for the land. I would like to start a prize fund for any person or persons to manufacture a satisfactory straw-cutter, easily adapted to any combine. The Dominion Government Experimental Farms has a department which conducts tests on farm machinery. They could probably be induced to act as a judge to pass on the strawcutter for safety, adaptability and quality of work.

Now if you will take charge of the fund I will send you \$100 because if the cash is actually on hand, parties interested in making a straw-cutter will know we mean business. I would pay more than that, but it won't be necessary. If you publish this letter lots of farmers will send money to the fund. The farmers are fully aware of the seriousness of the situation, but are reluctant to say much, as no one will listen.

The Country Guide has always had the good of the farmers and the country as a whole very much at heart. If you will take charge of this I feel sure we will be able to do something about saving the fertility of the land and preventing erosion in time.-H. E. Robinson, Alta.

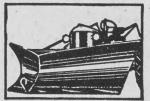
Editor's Note: Although The Country Guide has not previously made a practice of acting as custodian for funds of the kind proposed by Reader Robinson, we accept the suggestion on the following conditions: (1) That if a minimum of \$500 is not received

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by The Country Guide by July 1, any moneys that have been received will be immediately returned to the donors; and, (2) That should this amount or more be received by that date, it will be held for award by the Western Agricultural Engineering Committee or a sub-committee thereof. (The Western Agricultural Engineering Committee is an official organization of agricultural engineers, representative of the four western universities, the provincial departments of agriculture and the Dominion Experimental Farms Service in western Canada.)

Crops From Flooded Land
LOW-LYING areas that are flooded
for long periods in the spring
often produce no crop. Reed Canary
grass is naturally adapted to flooded
conditions and, even if land is flooded
for two months or more in the spring,
heavy yields of good feed may be
harvested. A large amount of land
that now produces low quality slough
hay, if broken and sown to Reed
Canary, would produce two or three
times the amount of much better feed,

says R. E. McKenzie, Dominion Experimental Station, Swift Current, Saskatchewan.

Before seeding, native grasses should be destroyed and a good seed bed provided. Eight to 10 pounds an acre should be dribbled in, the seed being no more than an inch below the ground surface. Seeding can be done in the fall just prior to freeze-up, or in the spring after the flooded areas dry

Reed Canary grass is usually harvested for hay, but it also makes excellent pasture. The price of the seed is often high, so if it is convenient to harvest it as seed, a good return usually can be secured. It is difficult to harvest as seed because the heads ripen from the top downward and the seeds shatter readily. One method sometimes used is to remove the sickle and guards from the binder and allow the reel to beat the seed out into a box constructed to fit on the table. The field can be gone over two or three times as the seed ripens, and after the seed is harvested fair quality hay can still be cut.

Early Settler In The Peace

The Andersens of Grande Prairie have been farming the same land since 1912

ARTIN ANDERSEN, born in Sweden, was the youngest of 12 children. Eventually, all but one sister came to North America and settled in the United States. One brother later returned to Sweden. Martin himself was married before coming out and in 1910 decided to leave Wisconson and seek new land in Alberta.

He was in Edmonton for about two years looking around and making up his mind where to settle. He worked for a construction company and had a good job, but what he really wanted was land. He nearly settled west of Carstairs, but what decided him in favor of the Peace River country was that he knew someone in the Peace and he was determined to go up and look the land over.

Getting up there wasn't easy. He walked in over the Edson Trail. He was lucky in locating land about 10 miles west and south of Grande Prairie, the same land that his son Kenneth (Ken) now operates and on which the father never had a crop failure. I use the word lucky because there was an element of luck in selecting land in those days. In addition, Mr. Andersen Sr., told me that he came into the country with two others, each carrying 80 pounds of luggage and food. From Grande Prairie he was fortunate in finding an R.C. priest going his way, who carried his luggage for part of the distance. The priest dropped it about where the Andersen barn now stands. I am not sure whether the location had been partially selected before, or not.

Mr. Andersen prided himself also on the fact that he always got good grades of grain as well as yields. His yields were never below 15 bushels per aere and his oat yields have gone as high as 137 bushels. The big oat crop reminded him of the matter of grades. He cut this crop before his neighbors thought he should, but he claims that because of his method of stooking, the crop dried well and was quite ready to thresh. In only one year

did he ever get poor grades, and this was the year he failed to cap his

His method of stooking was to make the stooks with one end toward the prevailing wind. Three moderate-sized sheaves are placed on each side, then two more alternating sheaves on each side with one split sheaf on top, as a cap.

Visiting his garden on August 7 was quite an experience. The sweet corn was ready; everything was growing luxuriously; there were all kinds of cucumbers and tomatoes and almost all useful garden crops. The garden was generous in size and free of weeds.

KEN ANDERSEN now operates the farm of 585 acres, of which 365 acres are arable. He is specializing in the production of registered and elite seeds and is a director of the Canadian Seed Growers' Association. The farm has carried up to 50 or 60 head of cattle but Ken finds that about 20 head is all he has time to handle at present. He finds that labor is a big problem in livestock production and the numbers of cattle are seriously decreasing because of this factor to a considerable extent. He employs a man only during the summer months.

Ken Andersen doesn't believe in taking on more than he feels he is able to accomplish. He was formerly a member of the Municipal Service Board in the district, but took on another job and resigned from the Municipal Service Board as a result. He evidenced an unusually broad interest in agricultural problems during our visit and was much concerned not only about the weed problem, but the increase in soil erosion. Contrary to most farmers I have met, he felt that agriculture would benefit from much more regimentation than we now have. Too many irresponsible people are doing just as they like he believes, which is not always to the advantage of the community or the quality of farming.-H.S.F.

Sprayer Operation

THE effectiveness of herbicides for weed control is reduced if the rate of application is not adjusted to the weeds that are to be killed. Also, if the rate of application is too heavy, crops sprayed can be seriously damaged. In spite of these facts Prof. G. L. Shanks recently told a Field Crops Short Course at the University of Manitoba that on an inspection trip last summer he found few operators who knew exactly what rate of application they were using.

He suggested a procedure that made it possible to determine accurately the rate of application. The operator must provide himself with an accurate measuring can graduated in small units, possibly down to onefifth of a pint. An accurate gauge stick for the tank is a necessity. A pad

and pencil are useful.

Fill the tank full of water and spray for exactly half a mile on the field, with the tractor in the gear that you intend to use and with the hand throttle fairly wide open. Stop and measure the amount of water sprayed, either with the gauge stick or by refilling with the measuring can. The amount used in gallons multiplied by 16½ and divided by the width of the boom in feet will give the gallons of spray required per acre.

The next step is to find out how much chemical to use per acre. This can be found in handbooks or bulletins and is usually given in ounces of acid per acre. The manufacturer will state the amount of chemical in pints required for each rate of application in ounces per acre.

T is easy to calculate the gallons of mix required for the first filling. Obviously with an 80-gallon tank 80 gallons of mix will be required. However, for subsequent fillings amounts less than 80 gallons may be required.

Suppose the sprayer applies five gallons per acre, in which case an 80gallon tank will spray 16 acres. If four ounces of acid are required per acre 4x16, or 64 ounces of acid should be put in the 80-gallon tank. If there are 10 ounces of acid in a pint of the chemical, 64 ounces will be contained in 6.4 pints of the chemical. This is the amount that should be added to the 80 gallons of water.

If, later on, the tank is to be filled and the use of the gauge stick indicates that 10 gallons of liquid remain in the tank so that 70 gallons must be added, the amount of chemical to add will be 70 times 6.4 divided by 80, or seven-eighths of 6.4 pints,

which is 5.6 pints.

The sprayer requires ordinary mechanical care. "The pump is the only part requiring special lubrication," said Prof. Shanks. "It should be greased sparingly with water-proof grease. Filter screens should be cleaned daily, even if not giving trouble, to prevent imbedded material from becoming hardened. We have found that an old tooth brush is quite a convenient tool for this purpose.

'When the spraying season is over all parts should be drained and cleaned of chemical. Rubber parts

should be stored in a cool, dark place. External metal parts which might rust should be flushed out with distillate or light fuel oil. Nozzles and screens should be taken apart and cleaned and stored separately."

NEW WEED KILLER BOOK SWEEPS FARM BELT

Canadian Farmers Acclaim Long Needed Manual on Chemical Weed Killing

Today, farmers across Canada are enthusiastically acclaiming a longawaited manual on the proper methods of killing weeds with chemicals. Prepared by Dow Chemical of Canada, Limited, this new work contains thirty-two information-packed pages as well as many helpful pictures on chemical weed killing, which has been endorsed by leading Canadian agricultural authorities.

The booklet enables every farmer to choose the right weed killer for his own particular problem. For grain farmers it covers the use of 2-4 Dow Weed Killer, Formula 40, to kill weeds in wheat, oats, rye, barley, corn and flax. It includes information on using Esteron 44 for hard-to-kill weeds and woody growths. For "chemical mowing" of areas along highways, ditch banks and fence-rows,



Getting Tough with Woody Growths!

Dow has developed a new powerful weed killer, Esteron 245, which is especially valuable in controlling woody growths that resist 2, 4-D formulations. These include elm, ash, oak, brambles, poison ivy, poison oak, and other plants of this kind. Used alone or with Esteron 44, it assures satisfactory control wherever wood growths are a problem.

New Product Brings New Life to Fence Posts!

Dow Wood Preservative, a remarkable new pentachlorophenol product developed by Dow, is a life saver for fence

posts . . . and a time saver for the farmer. Time spent replacing decay-ridden fence posts is valuable time lost from more productive farm chores.

Pentachlorophenol is a tested and proved wood preservative. Tests reveal pine posts treated with this exceptional material in excellent condition after 11 years exposure, while untreated posts failed after only 3 to 31/2 years. This treatment is highly toxic to decay, fungi and termites, and is resistant to leaching by water. Its application to most nondurable woods make them as long lived and serviceable as durable wood.

More Facts for You!

For more complete information on these and other Dow Agricultural Chemicals, see your local Dow dealer, local experimental station or write direct to

it tells the farmer how to apply Dow General Weed Killer (containing Dinitro-sec-Butylphenol) to get the most benefit. If there's a weed problem in the stand of peas or other legumes, seeded alone or with grains, the section on the proper use of Dow Selective Weed Killer (containing Ammonium Dinitrosec-Butylphenate) will be of interest.

These are but a few of the many valuable topics covered in this up-to-the-minute booklet "Increase Crop Returns With the Right Dow Weed Killer." The book may be obtained from Line Elevator Farm Service Agents, or by writing to Dow Chemical of Canada, Limited. 204 Richmond Street West, Toronto 1. Canada.





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Creston Valley

Continued from page 11

practically half the crop. Last year the pea crop was practically lost also, as a result of flooding in the flats.

THE soil in the Valley is quite variable and ranges from sand to rich, black soil. The area is three to four weeks later than Osoyoos, which lies at the southernmost end of the Okanagan Valley, less than a hundred air miles west. A small glacier remains only about 20 miles distant and helps to induce extreme variations in temperature, perhaps as much as 40 degrees F. This is very hard on tender fruit varieties.

Nevertheless, commercial fruit growing being what it is-a highly complicated business-it requires a finely adjusted soil-plant-man relationship to produce a highly perishable product which to be marketed in perfect condition must be grown on healthy, strong trees. Land values have in consequence, increased markedly. Ten years ago fruit land sold for around \$200 per acre. Recently, some land in the Valley has sold for more than \$2,000 per acre. Strangely enough, the intensification of production which accompanies sharp rises in the price of land appears to bring about complications in the well-being and life processes of the trees grown on the land. Of course I don't mean that if somebody pays \$2,000 per acre for land that was worth \$200 an acre 10 years ago, the trees will produce different kinds of fruit or behave otherwise than naturally, as soon as the money is paid over. What certainly does happen is that if John J. Jones pays \$2,000 for an acre of land anywhere, he must try his best to produce enough more from that land to justify his higher investment. This probably means, in the case of the commercial fruit grower, that he will try to grow varieties which will sell for more money. He may spray 10 or 11 times during the season instead of five or six times. He will use a wider variety of spray materials; fertilize and cultivate, if he can, more liberally and wisely. He may, in the case of some fruits, pick his trees twice a day, each time removing only those which are just right for marketing. If his land is irrigated he may irrigate less or more, endeavoring always to do just the right thing at the right time. He prunes and thins; he may even pollinate the blossoms artificially, or spray with hormones to prevent fruit from dropping. What he does, in effect, is to coddle and nurse his trees as carefully as if each were a world champion cow capable of producing 30,000 to 40,000 pounds of milk per year if handled right.

Nature doesn't do much coddling. In their natural state plants and animals develop certain means of resisting their natural enemies, but there is some reason to believe that this natural resistance is lost at least to some extent when complete domestication takes place. When resistance is lessened, new pests and diseases may appear. More and different sprays may be necessary, fertilizing and tillage practice may need to be altered, the cost of production may rise and prices be increased to consumers accordingly.

I am sure that this aspect of intensive production is important, but it

would require perhaps an economist, a horticulturist, a biologist and social scientist, each with broad training and experience, to analyze the problem of nature versus human efficiency successfully. All that I have in mind here is to emphasize the indisputable fact that high land prices demand a much higher degree of efficiency than is common in agriculture, if they are to be justified. Efficiency seldom increases equally with the price of land, though in the long run it tends to catch up, even if in the process some unfortunates are squeezed dry. If science is sufficiently helpful and the scientists are successful in meeting each difficulty with reasonable promptness, the increase in efficiency is easier to maintain.

Two problems in particular were facing growers in the Creston Valley when I was there. One was the fact that DDT, the wonder-working insecticide developed during the war years, was ineffective against the European red mite, a serious orchard pest which seems, if anything, to increase rather than decrease when DDT is used. Another problem was that of the "Little Cherry" disease, which, I was informed, would probably cost about 60 per cent of the value of the sweet cherry crop. Its effect is to produce small, triangular-shaped and comparatively flavorless cherries. Dominion entomologists and pathologists from the Experimental Station at Summerland were in the area with a mobile laboratory trying to catch up with these problems.

THERE were conflicting views as to the effect of DDT on the European red mites. One was that the balance between the mite and its natural enemies might have been disturbed, and the other that DDT might be exerting an effect on the physiology of the red mite, perhaps even increasing the number of generations of the mite born during the season. The "Little Cherry" disease was first discovered around Nelson about 1940, and was thought earlier to be the result of soil and moisture conditions. Now it has spread widely, and into the United States. It can be transmitted to other trees and jumps water. Scientists last summer were ranging the territory, sweeping the trees and fields to locate possible insects which might be acting as vectors, or carrying agents. Eventually they may find one or several such species and will then have developed a point of attack on the disease itself.

There are four co-operative packing houses in the area. One of these is in Creston, two in Erickson and one in Wynndel. There are several outlets from the Valley. It is served by the Kettle Valley railway line; there is a reasonably good truck service; an airport as close as Cranbrook; and, of course, highway connections via Nelson, or north to Cranbrook, or south to the United States. The comparative isolation of the district had meant a somewhat less effective science service than is available to growers in the Okanagan Valley, where the Dominion Experimental Station at Summerland with its complete facilities is immediately available. The experimental mobile laboratory already mentioned is the first of its kind in Canada and was available to the Creston Valley for the summer months. It is an interesting innovation.

-Webster's Dictionary.





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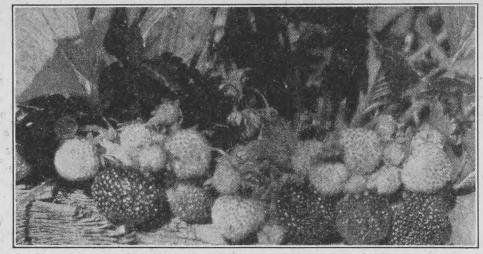
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HORTICULTURE



Glenmore, a triple-cross, June-bearing strawberry originated by Wm. Oakes, Miami, Manitoba.

The Strawberry Trail

THE 1948 season was a queer one I to say the least, with plenty of moisture early, dry in late May, then a wet spell, and this followed by one of the driest falls ever. Nevertheless there was a bumper crop of fruit. The worst drawback was in the late crop of everbearing strawberries. Some varieties continued to bear, although not as heavy as they should.

In general we have to have varieties that are adapted to dry land growing. Only odd growers can have irrigation. Therefore, we have to have varieties with a good root system and a constitution that can hold on. I have had many varieties originated in the east and I have yet to see any that can stand up to our conditions year in and year out. Some I find will give a bumper crop one year and then not for a long time. Some even go out in the hot, dry weather, or in the winter. I grow strawberries for the sale of fruit and if I had to depend on some of the old or new eastern or west coast varieties, lots of years would be a washout.

Of the everbearing varieties fruiting for me last year, first in yield and quality was Glenciss, a cross of Wayzata and Gem. This variety came in about June 12, with a wonderful set and there was fruit on them from June to freeze-up. They are nearly as large as Gem and much sweeter. Gem had a good crop in June but not as good in the late crop. Green Mountain gave a fine crop of large, showy fruit but fell off in the dry fall. Glenersk, a big, red, very sweet one, did fine, but could not hold out with Glenciss. Glenevis had a good early crop, but did not hold up in the dry weather. Glenrose, a berry with season similar to Gem, but sweeter and firmer, cropped similar to Gem. Glenora, a very dark berry with a sweet, wild flavor, produced a very satisfactory crop which visitors seemed to like. This is a good variety for home gardens and for those that like a very dark, high, sweet-flavored fruit. I happen to be in that class.

The June-bearing varieties were easily lead by Glen, an upstanding, healthy variety. Even a hail storm did not get them on the ground, but it did get all the rest. Glenmore had a wonderful crop, somewhat affected by the heat, but more so by hail. Glenheart also had a good set. Tupper had a fine set of first-class berries as also did Ralph. Elgin was only fairthe heat gets this variety most years, but I have had some good crops of this same Elgin. Marvel and Minn.

1153 were hit by the heat to some extent. Glenred had a fair crop of big ones, Glenburn only light, Carter poor, Borden poor, Howe fair. Valentine had a fair crop, but had leaf spot.

A number of new cross-breds had a good showing, in fact good enough to make them in the top class. My work in these Alpine varieties looks like a failure. Life is too short for

playing with them.

I might make a remark or so on other fruits, which might be of interest to your readers. In raspberries, the new Washington has stood four winters with me and has not killed back. They are a large, sweet berry. Newman as always gives a good crop of large, bright berries. Most of the Ottawa ones, such as Ottawa, Madawaska and Trent did well. Gooseberries had a very fair set. Glenelm apricot had a fine crop of quality fruit. The only fault was there was not enough fruit for the demand. The Westeway plum, a fairly large, red, flat-shaped plum with a smooth, honey-flavored flesh had a fine crop and held the stage in sales while it was on. The bees took quite a notion to it. In fact, they were not pleasant company in picking plums. All the late hybrids ripened and we had quite a treat, as many were excellent. Other

years they never ripened. Glenerlie apple, a hardy, standard apple, still gives a yearly crop of good quality apples. This tree is more hardy than Hibernal and its fruit is ready when the B.C.-shipped apples are green. It is good eating and cooking. Haroldson was a fairly good crop. Trail had the largest fruit and crop I have ever seen. One seedling Scugog, produced a crabapple with a scarlet flesh and size of Scugog. Several other seedlings had good quality, but all have to go through their tests yet. Every thing that glitters is not gold.

-Glenelm, Man.

Trees Around Dugout

OHN WALKER, Superintendent, Dominion Forest Nursery Station at Indian Head, Saskatchewan, takes issue with ugly mounds of earth that are frequently seen around dugouts on the prairies. Apart from the fact that they are unsightly, he argues that if they will produce anything the soil should be utilized.

It may be possible to level the mounds off, and work them in the normal manner. Alternatively, grass can be grown on the mounds. However, in Mr. Walker's view, no better choice can be made than the planting of trees. Willow or poplar may be | Please



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When Writing To Advertisers Mention The Guide. used on the lower levels, ash or maple on the slopes further up the mounds, and caragana on the higher knolls of the dugout mounds. The result will be a practical use of the soil from the dugout, and a more attractive appearance to the farmyard.

About G. F. Chipman

In August 1935, I received a letter from your late editor, G. F. Chipman, in which he told me of exceptional pin cherries he had received and some information about the pin cherry. I have never seen any of these fine, wild fruit in Ontario. I also received a copy of his booklet on "Hardy Fruit." This was left behind when we moved to Ontario.

I would like to learn whether the Chipman experiments are being carried on at present. Would it not be interesting to all of us if you had this information published? He mentions in the letter I have before me that he had written to those who sent him the large specimens, to encourage them to grow seedlings. Possibly a query in your columns would draw information on this subject.—Mrs. M. E. Graham, Ont.

Editor's Note: Unfortunately the 17-acre nursery and personal experimental station which the late Mr. Chipman so successfully developed is no longer in existence. It was carried on for a short time after his death, but lacking his close personal supervision and enthusiasm it was deemed advisable by his family to sell it.

Good And Bad Of Caragana

THAT there are many things to be said in favor of caragana none can deny. It is never noticeably affected by severe drought, intense cold or dense shade and will grow in some hard, heavy and slightly alkaline soils where other trees would perish. Planted two feet apart in the row and pruned back, it makes a very compact hedge. As most of its roots tend to penetrate downward, it is possible to plant crops and gardens fairly close to it. When in bloom, it makes an attractive sight and provides much food for bees. On top of all this, it is very free from disease and there do not seem to be any serious insect pests that can kill it out.

But it has its vices too. Every August, its long, brown pods split and shoot its seeds in all directions by the thousands. When tree planting was first started on the prairies, it was a standard practice to make up the centre part of windbreaks with rows of poplar, willow, maple and ash, with caragana on each outer edge. Now many of these windbreaks are in a deplorable condition. Caragana has spread all through them, forming an almost impenetrable jungle. Every square foot of ground has a dozen or two caragana of various sizes on it and what they do to the available supply of moisture doesn't help to prolong the life of the trees above them. In the end, the lowly caragana will be the only living thing left in thousands of these shelterbelts. And furthermore, as long as the caragana remains there, it will be futile to try to grow other trees to replace those that have died, unless a person is willing to spend some weeks on the handle of a grub hoe.

It is evident that in mixed plantations, caragana can become a deadly weed. If I ever plant caragana again, I will plant it strictly by itself, where it belongs.—Robert J. Roder, Alta.

Horticulture Venture

URS was a stark and unlovely farmstead 20 years ago. To be sure the gospel of tree planting has inspired countless farmers to beautify their surroundings in recent years but when I first viewed our Home Sweet Home, it was a desolate spot. Two lonesome, stunted bushes by the back step were all there was to be seen, as far as the eye could reach-at least on the one hundred and sixty acres. As for fruit trees, well, my husband, of Ontario stock, subscribed to the theory that the east was the place to grow fruit. Here we just sowed another bag of wheat for the wherewithal to purchase it. Came the lean years of drought when even rhubarb was precious and purchases of fruit lessened.

Even so, when an enterprising nursery salesman talked me into ordering fifty raspberry canes my husband disdainfully commented that if I wanted a raspberry patch I could have it

Yes, indeed, when that potential raspberry plantation arrived next spring I was on my own and all by my lonesome as far as planting and caring for them was concerned. To their credit and mine they prospered and multiplied as only anyone who has grown raspberries will have found out. And the berries! Luscious, aromatic, vine-ripened berries, quarts and quarts of them. Shortcakes, fresh with cream, jars and jars of jam and preserves in the fruit cellar.

With these results to convince us both we were an easy mark for the next nursery stock salesman who came along. Windbreaks of poplar, maples, elm and caragana, interspersed with evergreens to sparkle in their midst on a winter's day. Rows of golden willow, decorative plantings of lilac, honeysuckle and rowan trees. Truly we are now surrounded by a forest primeval. Plum, cherry and apple trees. And no less than five crabapple trees which, by now, are large and handsome trees as I who pick their fruit can testify.

Mounted on my trusty step ladder, the sun in my face and the breeze in my hair it's a lovely pastime on a golden September day to harvest those red and golden globules of color. As the pails and baskets fill up with sweet scented fruit, which in good time will be jars of glowing ruby jelly, there is satisfaction beyond words. The surplus! Ah, that is the problem. Every friend, neighbor, and even casual acquaintance is greeted with "Do let me give you some of our apples, we had such a good crop this year."

They seem happy to get them. For the phone rings and a neighbor informs me she has thirty half pints of jelly to reward her labors. Another stayed up almost all night making hers. Thank you notes arrive by mail from recipients where we left offerings in their absence. So as I happily garner the last glowing jewels from the topmost branch I ponder. All disposed of this season. But what about next year when people will still have jars and jars left over from this?—Mrs. S. Uren, Alta.

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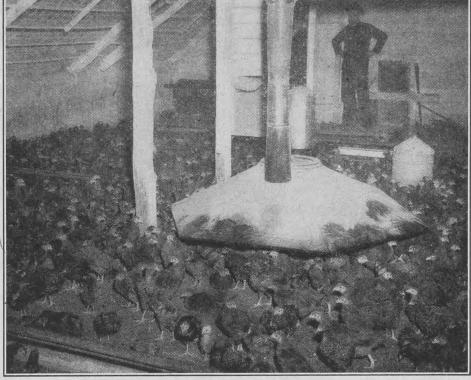
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POULTRY



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Five Hundred Acre Poultry Farm

This entire farm is built around a large R.O.P. poultry flock

. T. J. BOWDITCH'S farm is located in a pocket of Haverhill clay loam in the brown soil zone at Pennant, Sask. In other words, his operations are strictly dry-land farming. Yields are not too large and crops are by no means sure. These features influenced him in his decision to start raising poultry. He has 500 acres of farmland but the policy he follows is to raise only those grains that can be used to feed to the poultry. "Actually all the farm does is to give me cheaper feed and cut down the cost of production of the eggs," he stated. Poultry makes up the major enterprise on the farm. Grain is hauled to the elevator only if the crop is good and more grain is raised than is needed to feed the flock.

The flock consists of 800 laying hens in the Barred Rock flock and 300 laying White Rocks. Bowditch is an R.O.P. breeder. The hens are trap nested and detailed records are kept of the production of all birds. The Barred Rock flock averaged 211 eggs in a 365-day period, the eggs averaging 24.5 ounces to the dozen. The breeding stock averaged 270 eggs, three of the hens laying 326 eggs, one laying 325 and 18 laying over 300 eggs in the 365 days. The records kept indicate that the Barred Rocks are slightly heavier layers than the White Rocks. On the other hand the White Rocks appear to feather and mature more quickly and lay a little earlier.

Mr. Bowditch has only been in the poultry business for three years. His decision to go into this particular business was based on an interest in it and the fact that he does not enjoy good health and believed that poultry raising would make less demands on his strength than grain or livestock farming. With this in mind he studied books, bulletins and periodicals on poultry production and soon started into the business.

In a short period of time he built up a good poultry plant. He hatches a large proportion of his R.O.P. eggs in his own 8,200-egg capacity incubator, and sends the remainder to an

R.O.P. hatchery in Saskatoon. He has his own power plant and so is able to use an electric brooder for his chicks. He has a dugout near the poultry house, filters water into a large cistern nearby and with the use of an electric pump relays the water directly into the poultry buildings. The mash that he uses is prepared by a plant in Swift Current exactly according to his specifications. He is constantly doing tests on the mash and is attempting to improve it even more. As it is he considers it very good.

MOST of his media. OST of his income is from the sells chicks, sells breeding cockerels and laying pullets. Culls and older hens he sells for meat. Outside the hatching season he sells his eggs on the commercial market. In order to get top grades and prices he places the eggs in a cool room in the basement of the poultry house as soon as they are gathered. The floor is kept wet to keep the eggs from drying out. He markets in Swift Current twice a week.

The profits from the enterprise are not tremendous. For the last year he has had either two or three men working on the place. Added to this feed costs have been high, so his margin of profit has been very narrow. On the other hand he has been building up his business and has been gaining necessary experience. Mr. Bowditch is not too worried about the future. In this business the crops are sure, there is always some market, and he likes what he is doing.

Good Range And Pasturage

W/HAT is good range and pasturage? Quite often there is confusion as to the meaning of these terms. Good range means land which is well drained and free from disease infection and parasites. Most poultry diseases, like coccidiosis and tuberculosis, are contracted by the birds during the growing stages from contaminated soil. Brooding and rearing ranges should be planned on a rota-

WHETHER YOU RAISE

Poultry for eggs or meat it is wise to house the types which are noted for high pro-duction both ways. The poultry business is a big business in Canada. Don't waste is a big business in Canada, Don't waste feed on hens that do not have inherited ability to lay well. Eggs show one of the best turnovers of your farm commodities, showing a daily cash profit the year round. We have 12 pure breeds and 13 cross breeds to choose from. Older pullets eight weeks to laying, also day-old turkey poults. Free catalogs. poults. Free catalog.

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White Leghorns	17.25	9.10	35.00	18.00
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NH x BR	18.25	9.60	33.00	17.00
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kls. per 100: Heavies \$12; Leghorns \$4. Gtd. 100% live arr.; 96% acc. in pullets. W. H. McLELLAN, Manager.

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is only as good as the confidence you have in it. Fancy words do not make friends or loyal customers. Any hatcheryman worth his salt must offer you more than just chicks to warrant your patronage. The confidence you place in what a hatcheryman tells you counts more than the price ticket attached to the box of chicks. If you ticket attached to the box of chicks. If you can't buy with confidence don't buy. For 25 years Tweddle has been supplying some of Canada's best poultrymen with their chicks. If you are one of our customers place your order at once. If you have never purchased Tweddle Chicks before do so this year and you will buy them every year. Day-old non-sexed, pullets or cockerels chicks. Older pullets eight weeks to laying. Day-old turkey poults. All from Government Approved Pullorum tested breeders. Free catalog.

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helps insure healthy livestock

Iodine is an essential element in the nutrition of farm animals. When used in formula feeds, mineral mixtures and salt blocks, Iodine helps prevent:

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- Birth of hairless or almost hairless offspring. Ask your dealer and be sure the feed

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Write for free booklet, "The Place of Iodine in the Nutrition of Farm Animals."

Iodine Educational Bureau, Inc.

120 Broadway, New York 5, N. Y. 221 North LaSalle Street, Chicago I, Ill. tion basis so that the ground over which the birds wander will be free of chickens for at least two years previously. Good pasturage means young, succulent, green feed. There are a variety of plants suitable for poultry pastures. Annual crops such as oats and barley are good, but frequent reseedings are necessary to keep up the supply of young, tender plants. Brome grass, crested wheat grass, and alfalfa are all good permanent pastures, sown either alone or as a mixture.

Sanitation

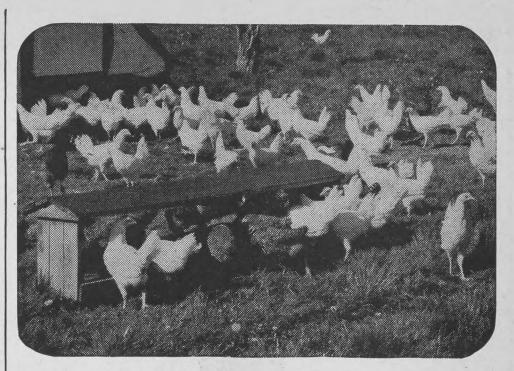
DURING the growing season, keep the young birds separate at all times from the laying stock; do not let them run together at any time. The old birds have had an opportunity to build up resistance to some of the diseases with which they are affected, but the growing birds have not. Another source of infection is the soil. If the same piece of ground has been used year after year for raising the chicks, the danger of infection from soil-borne disease (such as worms) is very great.

Some of the types of disease infection are spread by means of the droppings of disease-infected birds. These organisms will develop in warm, damp soils or may be dormant and become a menace to healthy birds. The application of lime is of little value. The only solution is rotation of the yards. Each year provide the growing birds with a piece of clean land which has not been used for raising chickens for at least two years. Seed this area to an annual crop such as oats. This will provide green feed during the early summer and shade later on. If disease should break out, remove the sick ones from the flock and confine the rest to their house or shelter, making sure they are not overcrowded. Any dead birds should be disposed of by burning-do not leave them around as a potential source of infection to the remainder. Send one or two sick birds to your provincial veterinarian for examination. If possible send them alive, as dead birds decompose rapidly, thus making an accurate diagnosis very difficult.

Care Of Chicks

PRINK should be supplied to chicks in fountains or other protected dishes that will not permit the chicks to enter with their feet. Skim milk, or good buttermilk, is excellent as both a food and drink for chicks, but extra care is necessary in order to keep the drinking vessels clean and sweet. After the chicks have reached an age of three to four weeks, finely ground wheat can be given in addition to the chick starter. Hulless oats can also be supplied for this purpose. Clean table scraps in the form of waste bread and meat scraps can also be profitably utilized as chick feed.

All feeding equipment should be cleaned thoroughly and regularly. The collection of filth on the feeding equipment may cause digestive troubles, and it is also a danger from the standpoint of disease. Brooder chicks should be observed closely and any weakly or ailing individuals should be promptly removed and destroyed. Weakly chicks are the first ones to develop disease and are, therefore, a menace to a healthy flock. The time spent in nursing weakly chicks is worse than wasted. Such chicks rarely if ever develop into healthy, profitable kirds.



Don't Miss The Months That Really Pay! Speed The Day Your Pullets Lay ...

With "MRACLE" Growing Mash

Many a farmer nurses his chicks carefully through the first critical weeks . . . then lets them fend for themselves. The result is slow growth and a poorly developed flock. Instead of starting to lay in the fall when the price of eggs is high, they start months later when eggs are cheap. They also tend to be poorer layers than earlier-maturing pullets.

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"Miracle" Growing Mash gives pullets the vital food elements that build growth. It ensures sturdy, large-framed birds with the internal development and stamina needed to withstand heavy laying. Get your flock ready for early production by feeding them "Miracle" Growing Mash now.

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Once your pullets begin to lay, feed them "Miracle" Laying Mash liberally. "Miracle" Laying Mash, like all "Miracle" Feeds, is a scientific blend of balanced ingredients, and contains elements to stimulate high egg production.

All "Miracle" Poultry Feeds are available in both regular and pellet form.



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The 6-fan rotor in Smalley Models A and C Grain and Forage Blowers is balanced like a dynamo, cradled in ball bearings. A rush of air is all you hear. Simple, safe auger plus anti-clog forage hooks gives positive feeding. One of the few blower fans able to handle soybeans and grains.

NOW THE NEW FOLDING BLOWER

ONE MAN lifts hopper, or tilts blower onto its air wheels for transporting. Folds like a jack knife.

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In your motor car, the outstanding quality of AC Spark Plugs maintains fuel economy longer and assures quick starting. Get a set from your AC Spark Plug Service Dealer or your implement dealer today, and see for yourself.

*AC's patented processes make this the finest insulator in spark plug history. Improved electrical insulation, no matter how high the temperature. Better heat conduction. Maximum resistance to heat shock. Less fouling. Harder, stronger, longer-lived.



GENERAL MOTORS PRODUCTS OF CANADA LIMITED

Humpty-Dumpty

Continued from page 9

increased flow of poultry meat. What's to be done about it?

The line of least resistance is to return to pre-contract conditions; to reduce production to domestic requirements. We know from past experience that there would be local and seasonal shortages and surpluses. When the latter occur the unorganized producers would get it in the neck. Common sense also tells us that a lot of new and expensive farm poultry houses would be only half full, and that the capital invested to expand the trade to war-time proportions would be lost. That solution satisfies nobody except that portion of the business fraternity which believes in unregulated trade.

There is another course of action which offers a glimmer of hope.

CONSIDER first the market for poultry meat. It is almost exclusively an American business. Last year the Americans took 90 per cent of our export of dressed birds plus a respectable volume of live fowl—29 million pounds, mostly picked up by peddlers working out of Detroit, Buffalo and other border points. That market hasn't been threatened—not yet.

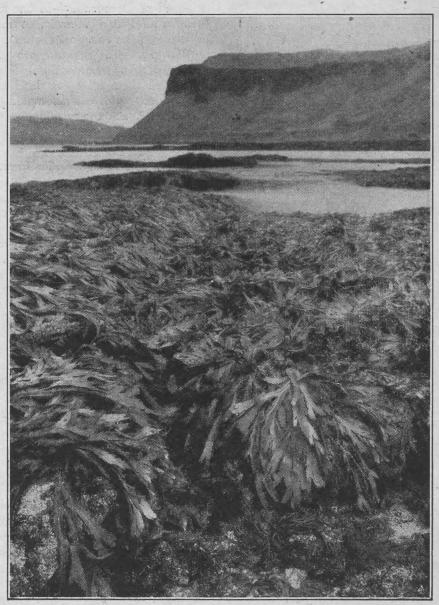
There is also an opportunity market for Canadian eggs across the line. Small shipments, judiciously placed where they can satisfy a fleeting need will raise no comment among American producers. A heavy and indiscriminate diversion of Canadian eggs into any one American market is morally certain to bring a protest. With prices skidding in Canada there would be a tendency to cut prices and

disrupt the American trade. A freefor-all scramble in our neighbor's back yard will bring Uncle Sam's wife out with the broom. There have been murmurs already. Wide open, unregulated export will bring demands for an embargo which Washington could hardly resist.

The sensible solution is, therefore, to set up some control machinery to feed the American market as, when and where it can absorb Canadian deliveries. This is exactly what the Canadian Poultry Council has requested of Ottawa. On February 1 a delegation from the Council waited on the minister of agriculture with a draft plan for an export board appointed by the government and representing both trade and producers, East and West. Note in passing that never before were the various elements making up the Council, growers and middlemen, so unanimous as they were on this question.

The delegation expressed to the minister its complete satisfaction with the Special Products Board, which provided the mechanics for the working of the British contract up to date. The Board which it asked for is to continue the same functions with respect to all exports markets. While it should be empowered to regulate all poultry products, the Council asks that for the present it shall restrict its operations to the egg trade only. The Council anticipated the reply of those who are likely to say that the establishment of such a board is a relinquishment of private enterprise. It replies that a request for national control is the voluntary effort of the industry to get something done collectively that cannot be accomplished by individual effort.

Unfortunately for the Poultry Council, the government is busy with



Seaweed on the foreshore at Mull, Scotland. It provides manure for the local farmers, and the basis for local industry.

something even more urgent, and has no zest for this kind of thing. Under the lash of criticism it shies away from any brand new proposition that remotely resembles government-inbusiness. The poultrymen proposed to defray the expenses of the Board from the sale of the product. They recommended that domestic trading, which took 75 per cent of the production at its peak, remain uncontrolled. But that doesn't sweeten the pill sufficiently. The government, mindful of all the harsh things said about controls in the past, is not exposing itself unnecessarily. It has categorically turned down the idea of a nationally operative board sponsored by Ottawa.

Mr. Gardiner's answer to the poultrymen is the Natural Products Marketing Act recently passed by
parliament. This Act delegates to the
provinces such powers as the Federal
Government possesses over interprovincial and export trade. Mr.
Gardiner apparently visualizes the
formation of marketing agencies set
up under provincial legislation, with
such concerted action as they can
achieve in regulating exports. A very
inadequate plan for an emergency
operation.

THE surplus producing area in Canada extends from the Rockies eastward to the Ottawa River-four provinces, each of them with a different marketing act. Saskatchewan's act cannot be invoked without a referendum. Alberta's act was doctored at the last session of the legislature. Competent opinion has been expressed that as a result a board equal to the poultrymen's needs cannot now be formed. Further legislation will have to be put through. In Manitoba the provincial act is thought to be adequate but powerful local forces which have successfully resisted market control in the past would take the field again, and it is doubtful if a Manitoba agency would be allowed to use the weapons lying in the legislative closet. As for Ontario, who will profess to believe that Tory legislators representing farming constituencies at Queen's Park will take a different view from their brethren under the Peace Tower, to whom marketing control is a wicked and a foreign thing? Lastly, all the provincial legislatures are already, or soon will be prorogued.

If the poultry business is to be saved when 'the surpluses begin to develop in the fall it will not be done by concerted provincial action. For those who prefer chaos to controls, victory is probably in sight in poultry marketing.

Price Support In The U.S. "WE are supporting the price of eggs by buying dried eggs in Mid-West surplus area. Since the first of the year, we have bought, roughly, \$50,000,000 worth of dried eggs. The problem now is to find a market for them. During the war and the immediate post-war period, we could and did sell them to foreign countries or the U.S. army for its own use or relief feeding. But today we are looking all over the world to find purchasers for the eggs we have bought

and stored.

"We are going to lose some money on eggs—a lot more than we did at the time we discounted them to the Army."—U.S. Secretary of Agriculture Brannan.



The ideal machine for 2, 4-D or insecticides

A ruggedly constructed sprayer, designed to give maximum efficiency at minimum cost.

The boom consists of an all-bronze, acidresistant, rust-proof, non-corrosive 33 foot pipe, to carry the chemical, fitted to a well supported, strong 2 inch seamless steel tubing for strength and protection.

Ruggedly constructed universal joints allow free boom action and permit the boom to be folded into the carrying position without uncoupling. Trailer is wider and shorter which allows greater manoeuverability and the elimination of boom whip.

Aluminum tank and constant positive agitator make this sprayer ideally suited for spraying chlordane or toxaphene for grasshopper control as well as 2,4-D for weed control.

Equipped with the new "Fargo Nozzles" for complete trouble-free spraying.

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National Grain handle a complete line of chemicals for all weed and grasshopper control including the popular 2,4-D, NATIONAL AMINE "80", and NATIONAL ESTER "P 44". For complete information on how and when to use 2,4-D ask for your copy of the 1949 "Handbook on Chemical Weed Control" featuring a quick calculator to determine the required amount of chemical. It also includes a section on Grasshopper Control.





For further information, and illustrated folders on spraying and dusting equipment see your local National elevator manager, appointed dealer, or write direct.

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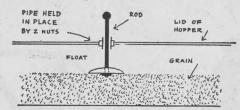


Workshop In May

Some hints that are handy at this time of the year

Grain-Box Gauge

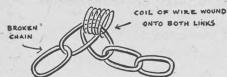
A floating gauge, such as is shown in the drawing, saves stopping the outfit to check the supply of seed and is also valuable when setting the rate



of seeding. The top of the seed box is drilled to take a 1/2-inch nipple, two inches long. The nipple is fastened in place with one nut above and one below. The float itself can be made from a piece of wood about four inches in diameter, rounded at the top. The 4-inch rod, slightly longer than the depth of the box, is fastened to the float. Determine the capacity of the box and fill it ¼ full; mark the rod at this point, then similarly for ½ full and % full. With this as a gauge, it is not necessary to use a box full of grain to find out what rate you are seeding. -M. E. P.

Emergency Chain Repairs

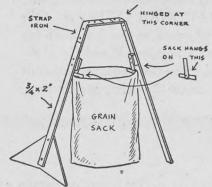
An emergency link for a chain can be made very easily by winding about six turns of wire around a screwdriver handle or other handle of about one-



inch diameter. Hold the two links to be joined so that one end of the spiral can be threaded through them both, then continue to twist the spiral of wire until it is all in the links. It is not necessary to fasten the ends of the wire as they will not slip after the loop has been pulled into an oval shape. If a ready-made coil is carried in the tool box, repairs can be made more quickly.-P. R. W.

Grain Bag Holder

A handy little holder for grain bags will take the place of a man when bagging seed, chop or feed. The legs of the stand are one by two-inch boards, one side being braced to prevent the

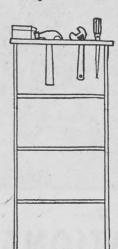


stand from falling over sideways. The other leg is hinged to the top cross piece so the holder can be adjusted for height. The hooks for the bag are made of strap iron about five inches long and are mounted on blocks to give clearance for the bag. The hinge may be an ordinary door hinge or may be made in the shop.-E. L. M.

Moving Tractors On Roads

Here is an idea I find very helpful when I need to drive a tractor with lugs on an oiled or surfaced road or street. I have cut the bead strips off some discarded tractor tires, so I can pry them over the lugs. This can usually be done with an iron bar just like putting a tire on a car rim. This is also helpful when using lugs on a lawn or in soft earth in the spring of the year. Hence I keep these old casings especially for the purpose .-J. H. R.

Step Ladder Conveniences

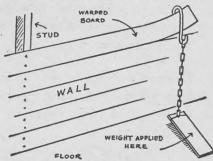


Many trips up and down a step ladder may be avoided if the tools and materials usually used when on the ladder are kept within reach. This is possible if holders are made for the screw driver, hammer, pliers and a wrench or paint brush by drilling holes in the top step. Small materials such as

screws, brads and tape should be put in a box which is then securely fastened so that it can not fall off while the ladder is being moved. If possible, have a lid for the box with a fastener which is secure.-W. F. S.

Handling Warped Siding

Warped lumber is particularly hard to handle when one man is working alone. A gadget made from a short plank, a rod or hook and a light chain



will make the job much easier. The chain can be fastened to the plank with a bolt, a large spike or a piece of wire. To use this device, nail the straight part of the board in place as far as it fits properly, then put the hook over the part that is raised up and stand on the short plank while the balance of the board is nailed in place. -M. E. P.

Marker For Transplanting

This spacer is handy in transplanting tomatoes, cabbage, onion sets, etc., as it leaves evenlyspaced marks as it is pushed along the row. The wheel is made by sawing out a disc from a board two inches



thick and 12 inches in diameter. The holes are spaced on the rim of the wheel according to the distance desired between plants. Wooden pegs are driven into the holes in the block and a handle bolted on as shown in the drawing.—H. M. C.



two-faced file with a thousand uses

It's double cut on one side for fast, rough filing. It's single cut on the other side for smooth finishing and for sharpening most edged tools.

It's handy in the kitchen. It's dandy in the workshop. And you'll find it pays to keep one in every farm implement tool box. It's an all-around file for the farm.

The bright (orangepainted) handle is actually part of the file. It's flat for easy carrying and has a convenient hang-up hole.

1

And like other Black Diamond files, the Handy File is precision made to give top-notch performance and extra-long service. Good hardware and implement stores have it. Get two or three.

NICHOLSON FILE CO. Port Hope, Ontario



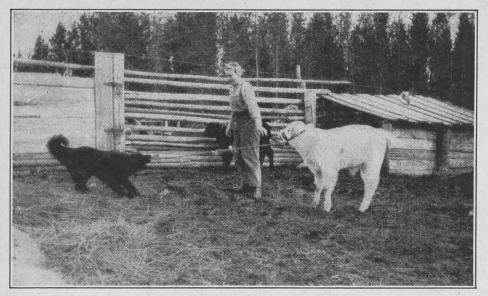




Kemoves iron and other foreign matter which makes water discolored or cloudy. Leaves it crystal-clear and palatable. Moderate cost. Write for free booklet giving full information.

Box 290, The Country Guide, Winnipeg, Man.

FARM YOUNG PEOPLE



Helen Urchit, of Heffley Creek, B.C., sends us this picture to show how Nigger handles the calf he can't chase.

Club Experience Leads To World Record

A young Ontario farmer who started calf club work when he was 12 years old has raised a world champion

ACK WAUCHOPE, York county, Ontario, joined the local calf club 14 years ago. In 1940 he bought a Holstein heifer calf for \$25 with the idea of exhibiting it in the calf club show. When he showed her, she won first place at the local show, and later stood fifth among the 50 entries in the calf club contest at the Canadian National Exhibition. The same year he and his brother succeeded in winning second place in the team judging competitions.

The York county agricultural representative, M. F. Cockburn, recently said of this club member: "I have known Jack Wauchope since he first started calf club work, when he was 12 years old. He is the type of modern young farmer who has taken advantage of the junior programs sponsored by the Ontario Department of Agriculture, thus becoming a better farmer than would otherwise be the case. Jack Wauchope learned how to handle livestock through his calf club activities and this record proves that he has applied that knowledge well."

The record referred to was set by Lynnden Hartog Daisy, a six-year-old cow bred and owned by Jack Wauchope. She produced 1,324 pounds of butterfat from 28,422 pounds of milk averaging 4.66 per cent fat in 365 days, on twice-a-day milking. This surpasses any record ever made by any animal of any breed anywhere in the world. "Daisy" has a previous record as a junior four-year-old of 23,978 pounds of milk containing 1.005 pounds of fat (4.19 per cent) which stands second for fat and third for milk for all time in its class in Canada. Incidentally, the cow that set the record was out of the cow that Wauchope bought as a calf in 1940 for \$25.

"Jack has been a member of either the Woodbridge or Schomberg calf clubs," said Cockburn, "for the past 14 years, first as a member, and for the past three years as a club leader. Three times he was the top calf club boy in his club, and in 1940 he and his brother Clifford took second prize in the Provincial Calf Club contest at the Canadian National Exhibition. He is a member of the Schomberg Junior Farmer Club. He has developed into a good farmer and a fine citizen and I

ACK WAUCHOPE, York county, am proud indeed that he has brought honor to himself and this district through the completion of this outstain heifer calf for \$25 with the

A Home For Birds

MOST of us have little idea as to the great variety of birds that pass through the farmyards in the course of a year. Some activity on the part of the young people on the farm can increase the number substantially.

The first and most important step is, of course, the control of predators. Perhaps the worst in this group are the two or three cats wandering about the place. Crows and magpies are well known for their depredations, and one or two crow or magpie nests in the shelterbelt will serve to discourage useful species.

The provision of adequate nesting sites is an important consideration in encouraging birds. The planting of trees and shrubs around the farmyard is useful. Native trees and scrub in the barnyard and fence corners will provide excellent nesting sites for upland birds. Patches of ungrazed, native grass will encourage those birds that nest on the ground.

Birds such as the house wren, chickadee, tree swallow, bluebird, purple martin, sparrow hawk and screech owl will make use of bird houses, if they are provided. The winter months are an excellent time for building these houses. Perhaps the most important thing to remember in building houses is to make the walls fairly thick, in order to insulate the nest from the summer heat. A double wall, with an air space between the walls is ideal. This calls for a lot of work. A good alternative is to use fairly thick boards that will insulate the inside to some extent. In the spring it will be necessary to watch the bird houses to keep the English sparrows from taking them over before more useful birds are ready to move

Encouraging birds to nest in the farmyard, and then studying their habits, can provide a most intriguing hobby. Added to this, birds perform a useful function in reducing insect pests and flies around the yard.

Imagine! The cleanest crop you ever grew! And it's easy with

'DIAMONDA' 2,4-D

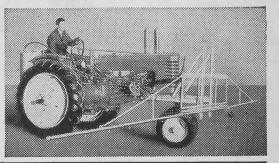
That's right! "Diamond A" 2,4-D is so easy to use . . . gives such wonderful results. . . that this year YOU can harvest the cleanest crop you ever grew. And safely, too! Because used according to instructions, "Diamond A" 2,4-D will not harm wheat, oats, barley, flax, rye, corn or most grasses. Thousands of farmers are getting bigger yields, less dockage, cleaner fields with easy-to-use "Diamond A" 2,4-D. Why don't you?

There's a "Diamond A" 2,4-D dealer in YOUR community. He can give you all the details about this safe, economical 2,4-D. See him right away. Get your order in EARLY!

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your questions about 2,4-D

spraying. Write Ashdown's for

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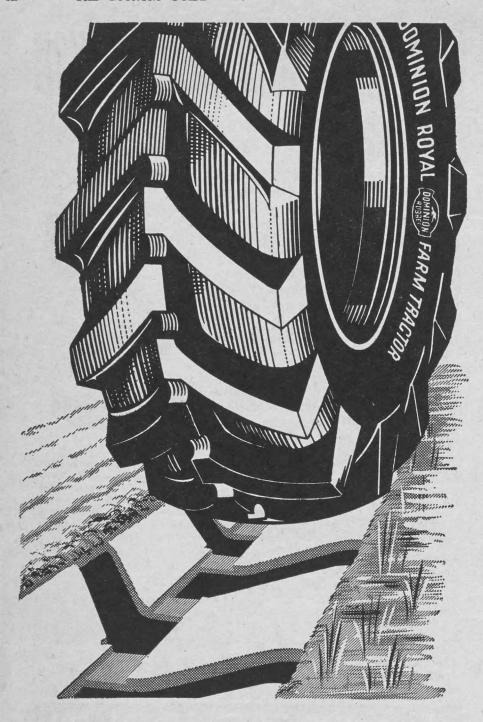


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-WITH APOLOGIES TO COLE PORTER

BLACK, OX-BLOOD AND ALL SHADES OF BROWN !

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NOU NUGGET" YOUR SHOES THIS MORNING?



Backbone Tread Gives You Greater Traction Longer Wear

Here's proof that the Dominion Royal Farm Tractor Tire provides maximum traction—and speeds up farm work.

This husky Backbone tire was used by Rhys Bacher of Hagersville, Ont., winner of the Esso Championship at the latest International Plowing Match.

The Backbone tread of Dominion Royal puts more lugs to work—delivers full-bite traction—beats costly slippage.

And the continuous running surface of the Backbone design delivers superior performance on hard roads. For full information, see your Dominion Royal Tire Dealer.

DOMINION ROYAL Farm Tractor Tires

9-DF-1

DOMINION RUBBER (COMPANY LIMITED

Honey Recovers

Continued from page 8

American reactions was to ship some of their surplus to Canada—not much, but enough to aggravate our troubles when the roof fell in. The Americans had a Marshall Plan to fall back on. It took 15 million pounds of the product last year. Marshall dollars are out of reach of our honey vendors.

THE last twelve months has been a painful period of recovery in Canadian honey circles. It has been achieved by two methods: by reduced production and increased sales. Many small-scale operators have dropped out entirely. Most big producers have curtailed operations.

On the other side of the equation sales have been increased. The parity price of honey on a 1925-29 base is 24.2 cents a pound. At the present time it is selling around 18 cents. At that price it is an economical source of human energy. It is now fully competitive with other sweets. A four-pound pail will go further than a can of jam of similar size. The kids cannot make it disappear as fast because it is more concentrated. This becomes a potent argument with families which had several pay checks coming in concurrently in wartime, but now have only one. Salesmen have driven it home. Honey has found its way back to the Canadian kitchen.

One of the means by which the honey crowd cut down the surplus which was demoralizing prices was to invoke federal support price legislation empowering the minister to put a price floor under depressed agricultural commodities. As this is written, negotiations are progressing between the department and the Canadian Beekeepers' Council to arrange for the purchase of five million pounds at 14 cents for pasteurized honey, f.o.b. Montreal. It is anticipated that this will be stored and slowly fed back into the trade when opportunity offers.

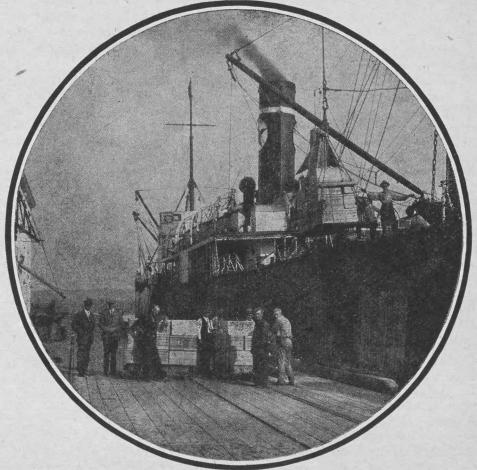
Growers calculate that this price will just barely take care of production costs for the most efficient. That is the most that can be expected of support price action, anyway. Come May 1950, the trade declares that it will have no surplus left on its hands.

The beekeepers have not had it all their own way in the parleys which led to this new government policy. They were very critical of the f.o.b. Montreal clause as it discriminates against the western provinces where the bulk of the good honey comes from. It costs the Alberta hive owner about two and one-half cents to get his honey put into St. Lawrence cold storage. That is nearly 20 per cent of the sales price under the support policy! Beekeepers also look coldly on the government's refusal to buy raw honey. Pasteurizers are industrial equipment. Private parties cannot instal them hence they must sell their honey raw. The government policy freezes them out, so the growers contend.

On this last point the department has a good answer. Some of the stuff going into storage may be on the public charge for a long time. Unless it is pasteurized it may not keep.

HONEY has recovered. It has done so almost exclusively by altering the supply-and-demand factors which got it into trouble. Some will say that its recovery ought to serve as a pattern for other commodities when the winds of adversity begin to howl about their doors. It is an argument as old as Adam Smith. When producers cannot stand the racket, so the argument goes, they ought to switch to some other activity.

That's as may be. It is a valid argument for honey for which there is a relatively elastic demand. It may be possible to argue a housewife into doubling her year's purchases of honey. Try it with flour. It may be possible for thousands of small beekeepers to quit the business with no serious diminution of their income. The grain grower on the open plains cannot stand that kind of a squeeze. So let us do credit to the individuals who engineered the recovery without being blinded to the social limitations of their method.



Marshall dollars paid for 15,000,000 pounds of American honey last year, but they are not available for Canadian honey exports.



Studebaker Champion 4-door sedan

Studebaker's the 49 buy word

for a welcome new kind of low-cost mileage

ALMOST everyone likes the flightstreamed design of the new Studebaker—but the really big distinction of this postwar dream car is the way it holds down operating

In gasoline savings alone, a new Studebaker does much to help keep many a family's income in balance with outgo.

What's more, owners of new Studebakers hardly ever face the problem of finding the money for costly repairs.

Even the brakes of a new Studebaker rarely require maintenance attention. They automatically adjust themselves to lining wear. You have the firm brake pedal feel of a brand new car for thousands of miles.

It's smart to be fussy this year in buying a new car. Make Studebaker's low-cost mileage your measure of real money's worth.

White sidewall tires, wheel trim rings or discs, available on all models at extra cost



A new vision of loveliness—Smart decorator-fabric upholsteries grace all the 1949 Studebaker interiors. The luxurious new Champion 4-door sedan is illustrated here. Studebaker's Land Cruiser sedan is upholstered in nylon.



New thrills and new thrift—Automatic overdrive at its finest heightens the pleasure of Studebaker performance. Riding's like gliding. Studebaker's overdrive costs a little extra but starts repaying you in extra savings right away.



No rolling back on upgrades—Studebaker's automatic hill holder means new safety when you're ready to go forward after coming to an uphill stop. This convenience is provided at no extra cost, except on Champion models.



Trustworthy structural soundness is built into every Studebaker by America's most pains taking automotive craftsmen. Many are members of unique father-and-son teams.

O 1949, Studebaker Corp'n, South Bend 27, Indiana, U.S.



A floor for a Mam... and less work for his Wife

A MAN wants a floor that he doesn't have to be afraid to walk on even if he has been doing a bit of gardening, or carpentry, or furnace-fixing. He wants peace of mind — and Marboleum gives it to him. If he does leave a few tracks, or drop a few ashes, what of it? A swish of the mop and the most house-proud wife is happy again.

Then too, Marboleum — being made so largely of cork — is resilient, step-cushioning . . . and it comes in colours to suit all tastes.

The colours go right through to the boards, and an occasional waxing keeps them like new. And, when it's down, it's down for years . . . Nothing to worry about . . . Yes, Marboleum is the floor covering for peace of mind.



Creating A Sale

We took the linen-and the dress length too

by G. E. EDWARDS

T is some little time now since a young man drove up to the front door and, getting out of an obviously worse-for-wear car, collected a couple of grips from the rumblethereby announcing himself beyond all cavil as one of the worst of our nuisances, a commercial traveller of the house-to-house variety.

It was in his favor that he spoke very nicely and did not seem in the least degree aggressive. Indeed, his opening gambit practically apologized for disturbing us; but (he said) he felt bound to give us a call, if only to show the extraordinary bargains he was able to allow in the matter of table and household linens.

"Of course I am hoping you'll place an order with me," he said with a pleasant smile, "because then I get my commission. But if in the end, after seeing what I have here to show, you decide not to buy . . . well, it is all in the day's work and I must just hope for better luck elsewhere."

"Or next time," I suggested weakly; but he shook his head.

"There will be no 'next time'; the offers cannot possibly be repeated," he replied sadly yet firmly, "and I am extremely lucky to have been able to get in on the ground floor, so to speak, on this occasion.'

And somehow, almost before I realized what was happening, he was in the house . . . inside the sitting room . . . opening one of the grips. Janice declares I wilted at the word bargains, but I don't think so. In common with every other housewife, I enjoy a genuine bargain when I find one; in common again with other housewives, they are not so easy to discover, very often in the end proving no bargain at all.

BUT my eyes opened wide when I saw the contents of that grip. Here were no cheap, shoddy articles but, rather, the very best of everything. Superb double damask tablecloths with serviettes to match; linen face towels in several designs that were a joy to finger, with accompanying bath towels of unimpeachable fluffiness; besides specimens of every cloth known to kitchen or house duties. He spread them out one by one, expatiating on their worth; and, apologizing that limits of space precluded bringing around more than two tablecloths-and those of the smallest size made-opened out various serviettes in different designs. These would, he explained, show clearly the general effect of the matching cloths, any of which were immediately available from stock. All I had to do was to indicate my choice.

At that moment cautiousness returned to mingle with my gloating. The prices clearly marked on each article were absurd, much too low to be credible. I voiced this opinion aloud, but he had the answer to it. It seemed that some firm had gone out of business-forced out by some unscrupulous adversary in the same line of trade-and a third party, scenting a good chance, had stepped in with an offer to buy up everything. The price (which was accepted) was

ruinously low, and the purchasers were passing this saving on to the general public direct instead of selling through retail merchants. It all sounded quite plausible and . . . well, I fell for it.

AUTION, however, struck a second time; and I hinted delicately that payment in advance was quite out of the question. The young man was genuinely shocked. Such an idea had never occurred to him, so he said. He was only sorry he did not carry the actual articles with him; but I could see for myself how it was. The car could not possibly hold the amount of goods needed; so the best he could do was to take around samples of everything and then book orders as received, goods being sent C.O.D. no later than the following week or ten days. No money would pass until the articles were in my actual possession.

It all seemed fair enough, if I only paid at the time of delivery then I couldn't possibly lose! With mind at rest, I spent another hectic quarter of an hour selecting and rejecting, the young traveller jotting down details in a small black book each time I made up my mind. When all was satisfactorily concluded and I had booked some twenty-five dollars' worth of things he restored the linens to their grip and I expected him to take his departure. Instead, he hesitated a

"I don't know if you'd be interested in a dress length of navy rayon fabric?" he inquired. "I was asked to take some lengths around on this trip, and there's just one left-the very last of all." Then, apparently sensing a woman's objection to purchasing something she might see worn by a neighbor, "I sold the last but one in X-," mentioning a small town some 39 miles distant.

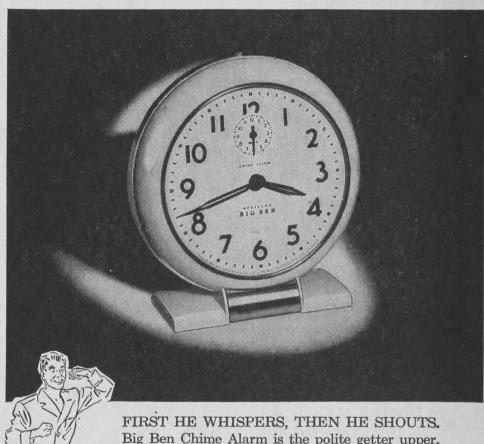
In the twinkling of an eye the second grip was open and out came the rayon material. Now I am not prepared to swear I would not have bought it over a store counter; it wasn't such poor quality as that. But I do know I wouldn't have paid the price he asked. Quite innocuous but unimportant, that dress length; and he stated a figure that should have paid for it twice over. Under any other circumstances I'd have refused; but my shopping eyes were blinded by the recent list of real bargains. I had been almost hypnotized into believing anything that young salesman sold me must be a bargain too! So I got my purse and bought it . . . at double its value. And the family haven't yet finished laughing at me.

Did those wonderful linens turn up? They did not. Nor have I ever seen anything more of that young man. Well, he told me it was a oneoccasion trip, didn't he; and he turned out to be very, very accurate. All that play with linens (bought for the purpose) just to trick one into making a real purchase at the end of the inter-

Up to then I had thought I knew every trick, every device of the selling angle; but there's always something fresh waiting around the corner.



THE COFFIELD WASHER CO. LIMITED Hamilton, Canada



Big Ben Chime Alarm is the polite getter upper. His tick is quiet. He has a 2-voice alarm. His first call is a whisper. Then, if you don't wake up, "lets you have the other barrel" with a loud call you simply can't ignore—he shouts!

(Big Ben Chime Alarm: Ivory finish, \$5.95; with luminous dial, \$6.95)

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Prov.

Cat-Skinner

Continued from page 10

the bottom, but that fellow didn't live to see it. Tank caught fire of course, as soon as she started to roll."

There was a shocked silence. They never got used to Phil's stories. Here in the Valley death was an imposter to be feared and spoken of in hushed tones, not a workfellow to be called carelessly by name over a card table.

PHIL never seemed to sense that he wasn't talking their language, or perhaps he did not care. Perhaps that great tide of remembering things from the past that he had found good, got too strong for him, and he had to talk about it, whether anyone wanted to listen or not. Mary reckoned she would feel that way about the farm if she were away from it for a long time, away from people who knew it too.

"You never can tell about luck though," Phil went on. "Couple of weeks later a trucker pulled onto that same ledge for some shut-eye. Would you believe it-he woke up safe and sound, only while he was sleeping his truck had skidded clear to the bottom of Suicide Hill!"

Mary groaned inwardly. Why did he have to top it off with something that none of them could even pretend to believe? She used to believe it once, but it was too much to ask of the others. They didn't know the other side of Phil . . . the gentleness reserved for her and little Billy in the shelter of their home, the strength that made a buffer between her and the world she had once had to wrestle with alone. Now she didn't have to worry about getting firewood from the brush, or going out with a lantern on a wintery night to help a sick cow. Those were a man's worries, and they fitted easily onto the broad shoulders in the red checked lumberjack's shirt.

But she would never be able to fit Phil into life in the valley, any more than she could persuade him to wear the denim overalls that the other farmers wore about their work. He would always stride among them, a stranger in breeks and high topped boots, kindly tolerated for her sake, and because they were among kind and tolerant people, but never quite one of them. Always an outsider.

The thought was bitter in Mary as she rose to make coffee.

Tim was talking now about the price of cattle. Phil was listening, but the alertness was gone from his face and he was stifling a yawn.

OCTOBER brooded over the valley; gilding it with grey and gold. One evening when the chores were finished Phil came into the house saying, "I'm going to town for the mail. Want to come along, Mary?"

"With you in a minute, Phil. I want to get some groceries."

Billy was bundled into heavy wraps, for the tang of autumn was sharp after sundown. The old car rattled down the road toward the river which they must cross on the scow.

Mary always held her breath as they plunged down the last of the hills, for the brakes were notoriously unreliable. Phil always managed to stop a few feet past the black and white sign that read: DANGER, Traffic Stop Here.

"Well what goes on?" said Phil, in interested surprise as the car shuddered to a halt a few feet behind a large trailer loaded with a Diesel Caterpillar.

"We're going to have to wait for them to cross and come back," said Mary in irritation. Obviously there was no room on the scow for anything more than the great truck and trailer which boasted four sets of dual wheels.

"They won't take that outfit across in one trip," commented Phil. "Too much weight for the scow."

The voices of the truck driver and the ferryman drifted back to them.

"You'll have to unload that Cat and take it across by itself," shouted the ferryman.

The driver looked uneasily at the lengthening shadows. "Sure hate to waste time tonight. I've got a long way to go."

Sorry. This scow carries twenty tons at the most. That Cat would weigh that much by itself, wouldn't

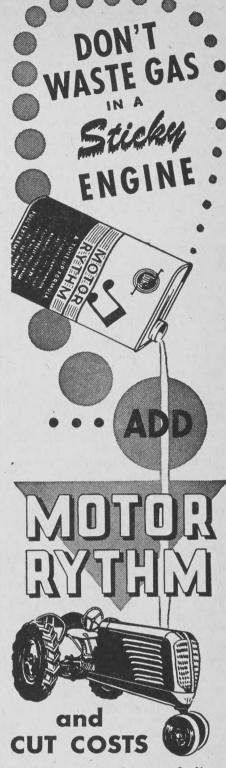
"Well, I crossed this outfit on a smaller scow than this last week. Didn't unload nothin'. I think we could make it.'

Phil grinned at Mary. "Maybe he did, but I don't believe it."

THE ferryman shrugged. "Well you can try it if you like, but you go on entirely at your own risk. That outfit of yours about thirty feet long?



"I'll take two dozen."



Farmers everywhere are finding they can save substantially on gas, oil and repairs by using Motor Rythm regularly in the crankcase and carburetor of all gasoline units. It keeps them free from "sticky" powerwasting deposits such as carbon, gum, sludge and varnish.

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LEADER IN MAINTENANCE CHEMICALS

Thirty feet out there," he gestured towards the river, "the water's twelve feet deep and there's quicksand underneath it."

The driver was out of the truck, looking calculatingly from the big Diesel truck and semi-trailer to the scow.

"I think we can make it," he reiterated.

Drawn by the magnetism of the big machinery, Phil was already circling the truck, helping tie the scow and lay planks along the apron to equalize the weight when the truck crept onto the scow.

WHEN all was ready the driver climbed back into the truck, and began to inch his machinery forward. A nameless fear gripped Mary as she watched. Something would surely happen . . . the cables would snap, the scow would simply disintegrate under the weight.

But no... the truck was on safely, then slowly the big trailer with its burden followed. The ferryman was shaking his head. Mary could see the scow had sunk until the water came over the bottom of it.

"I can't cross you," said the ferryman. "You'll have to back off and unload that Cat."

The truck driver swore and began easing the load back off the ferry.

Mary saw Phil tense as the rear wheels of the trailer bit into the sharp rise and refused to mount it. The truck roared as the driver opened the throttle. Something had to move, under the impact of the increased power. The trailer couldn't, so inexorably the great drive wheels pushed the scow forward, the moorings broke, and the scow shot out from under its burden and catapulted with the ferryman clinging to the guard rail, toward the other bank.

The rear wheels of the trailer rested on the bank, but thirty feet ahead the cold, black water closed over the front of the truck, the driver imprisoned in the cab. Horror choked Mary as she saw Phil hurriedly untying the rowboat, tugging off high topped boots, stripping off the woolen shirt.

With a stern "You stay right here!" to the protesting Billy she shut the doors of the flivver and raced to the water's edge.

"Phil, what are you going to do?"

"He can't get the truck door open.
I'm going down to help him."

She wanted to beg him not to go. The icy water might cramp him, the fiendish current might snatch him away. Then she thought of the man imprisoned in the cab of the truck, the water pouring in from the bottom, bringing death closer by the instant.

She watched Phil as he dived over the side of the boat. The waiting was endless. Her own lungs seemed to burst as she unconsciously held her breath. She was dimly aware that Billy in the car, was howling with all his might.

Then the black surface of the water broke and the two of them were taking great mouthfuls of air, then both men were scrambling into the boat. Mary stared at the driver, apparently none the worse for his tussle with the elements. A great wave of pride filled her. This was Phil's breed of men, the truck drivers and cat-skinners who did their work with such casual reck-

Farmers Refuse to Accept Unnecessary Loss of Crops

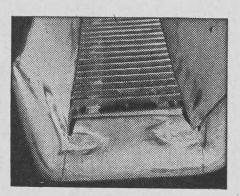
Becoming skilled with New, Portable Welding and Cutting Outfits. Make Their Own On-the-Spot Repairs.

CALGARY, ALTA.—Harvest fields, this year, will still be subject to weather whims. Many farmers, however, are feeling a lot easier in their minds about what may happen if equipment breaks down at a critical moment. They are welcoming an amazing new tool which has come into the farm picture.

This is the new, portable "Metalmaster" oxy-acetylene welding and cutting outfit. It is the first light weight, portable outfit of its kind, one that can be taken anywhere for on-the-spot repairs by the owner.

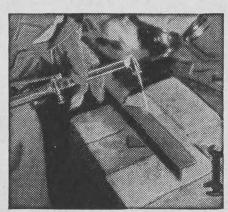
Reports from farmer-owners of a "Metalmaster" outfit indicate that it's a comparatively easy matter to use this welding and cutting outfit. Simple jobs are done first, but practice quickly enables farmers to make almost any kind of repairs. Also to make many useful, moneysaving farm items.

A "Metalmaster" Outfit places the hottest flame on earth at your fingertips. You become a master of metal. You can heat, bend, braze, solder, cut or weld practically any metal, wherever necessary.



(Above) damaged ensilage chopper cheaply and quickly repaired by bronze welding—in 5 minutes.

(Below) Steel is cut with a "Metalmaster" torch about as quickly as you can saw through a board.





A complete "Metalmaster" portable cutting and welding outfit, with DOC's new small oxygen and acetylene cylinders, and truck, only weighs about 145 lbs.

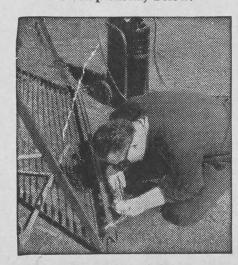
Old Scrap Metal Profitably Turned Into Useful Farm Items

Owning a "Metalmaster" Outfit will open up new and profitable opportunities. That old water boiler, rusting behind the barn, can be made into a useful trough. Old steel drums can be handled similarly, according to directions in the instruction book.

With practice you can make dozens of farm items. For example, one farmer made his wife a cold storage unit, very cheaply, with his "Metalmaster" Outfit.

An outfit like this constantly puts money in your pocket and soon pays for itself.

Dismantling an old bed spring for its scrap metal, below.



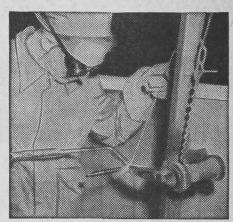
A Boon to Farmers Who Want Special Equipment

In some cases, farmers are making special equipment with their "Metalmaster" Outfit—such things as buckrakes, manure loaders, wagon trailer beds and frames, hay or root-crop loaders, reels for barbed wire—even snow plows. These are items which would be expensive, even if obtainable.

Large money savings also come from modernizing or converting obsolete equipment — adapting horse-drawn equipment for motorized operation, for instance.

There are literally 101 ways in which a "Metalmaster" Outfit can save you time, trouble, and cash.

Below: A broken windmill winch handle is replaced by welding on a 3%" carriage bolt.





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scribing the uses of a "Metalmaster" Outfit is just off the press, and there's a FREE copy waiting for *you*. Over 50 authentic farm pictures. See them. Read the folder.

Learn what a "Metalmaster" Outfit can mean to you . . . how it will pay for itself and put money in your pocket. This booklet won't cost you one penny. Write for it, to-day, to our nearest office.

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Ask for Booklet No. M-30

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Serve this wonderful, spirit-lifting blend-

The NEW Chase & Sanborn

Don't cuss it - Weld it ... on the spot

Breakdowns won't affect the farmer with this handy "Shield-Arc Jr." welder

Welding on-the-spot saves time and tempers. It gets

equipment back on the job while the weather holds good.

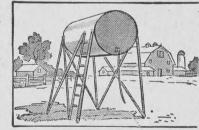
Make "breakdown worry" a thing of the past. It tells you how in the free booklet "Welding Ideas for the Farm".

On-The-Spot Equipment Repairs

Discing goes If you want an adahead on sched- ditional cattle shed, ule after weld- hay-rack, barn, bullrepairing this paddock, fence, or disc harrow right when you put arcout in the field. welding to work.

Additional Farm Structures

oil-tank, it's easy



Specially built for the farm, the "Shield-Arc Jr." (left) is a low cost, engine-driven welder complete with everything you need for welding on your farm. Easy to move anywhere on the farm. Don't gamble; be sure to find out about this reliable and efficient farm welder.

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lessness, who thought no more of a duel with death than did these two, who with chattering teeth stood beside the truck and were thinking of nothing besides getting it out.

"You two come straight home and get some dry clothes on," she commanded, her own voice shaking. They didn't notice her.

"That truck's in quicksand. It's got to come out right away."

The truck driver stepped back, Phil beside him, looking at the Caterpillar, and the four foot drop from the trailer platform to the ground.

"We've got to get that Cat off there in a hurry, and yank the truck out with it."

PEERING through the dusk Mary saw that the truck driver was an older man than Phil, at least ten years older. The cold plunge was harder for him to take than it would have been in his youth. As he tried to climb onto the trailer he swayed weakly and leaned against the machine for a moment, swearing under his breath.

"I'll do that," Phil said. "I'm a catskinner."

Mary turned her attention to the shivering man beside her. "Please come up to the car," she said. "There's a woolen blanket there that you can wrap around yourself. It should help a little."

Billy's howls abated as they came closer to him. He looked at the big man in amazement.

Mary did not stay long at the car. Her concern for Phil drew her back to the river's edge.

The Cat was already roaring and belching black smoke from the exhaust pipe. Phil was nudging it slowly towards the back of the platform. With the aid of the hydraulic 'dozer he was able to lower the Cat to the bank.

The ferryman had landed his scow on the other side, undamaged except for a broken apron, and returned to the scene with the row boat. Washing his hands of the entire affair, he sat on a stump to watch proceedings and roll a cigarette.

The driver came down the hill again, clinging to the extra warmth of the blanket, but he threw it down, forgotten, to help Phil fasten the cable from the powerful little Cat around the platform of the trailer.

"Too bad you didn't think to take

it out of gear while you were down there," grinned Phil. "It'd pull a lot

NOW that the danger to Phil was over Mary brought Billy down to watch while the big truck was slowly pulled out of the river and off the narrow road so that it would not interfere with the other traffic.

The ground trembled under them as the Cat thundered by, and Mary felt the thrill of its power. Surprised, she thought, "now I know why Phil can't forget them . . . "

Phil looked younger again, the lines of strain gone from around his mouth. It was as though he relaxed at the touch of the big machine. He undid the cable and got back onto the Cat.

He didn't have to go down over the bank in the steepest place, but he did. He crawled along the sidehill with it, he circled it, he came back onto the road. There was a ridge of loose dirt in the centre of the road. Not much of a ridge. He didn't need to let the 'dozer blade down with a thud and scrape it level, but he did.

He's sporting with it, Mary thought. He's almost making love to it. The thought balled up in her throat and she couldn't swallow.

The driver watched Phil's effortless mastery of the machine. "Good catskinner," he said. "Construction work going on around here?"

Mary shook her head. "No. Phil hasn't handled a Cat for four years."

"Oh." The man looked comprehendingly from Phil to her and to Billy. She thought she saw a veiled contempt in his eyes. It irritated her. To him she was excess baggage, coming between a man and the work he was cut out for.

An inexplicable thought burned her cheeks. He's right, she thought. I've known it all the time. Phil was made to master big machines, and sooner or later they are going to take him away from me.

The fear stayed with her, dulling her awareness of the chilly trip home. She knew vaguely that the truck driver was coming home with them. She supposed she must have asked him.

When they reached home Phil built the fires. She filled the coffee pot automatically.

"Have you had supper?" she asked the man.



"But officer, I don't want you to tear up the ticket."



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"Well, not today, but don't you go to no trouble. A cup of coffee will fix

"I'd like some lunch too, Mary," put

 $\mathbf{I}^{ ext{N}}$ spite of herself she smiled a little, going back to the kitchen. Since Phil came into her life she knew what demands an outdoor man's appetite can make. She warmed left-over potatoes, opened a jar of home canned pork and beans. She broke eggs into a frying pan until there was not room for another one. Then as they cooked she laid two places at the oilcloth covered table, with only a cup and saucer for herself. She piled doughnuts onto a plate and added a bowl of strawberry jam.

"Come and get it!" she called from the doorway.

Phil nodded to her. The other man was at a critical point in a story-Phil's kind of story, and Phil, grey eyes alert, was hanging onto the words. Familiar names reached her . . . Skagway . . . Dawson Creek . . .

The men came into the kitchen, sat down and attacked the food. She sat across the table from the stranger and forced herself to swallow coffee. She was chilled through and that feeling of snakes in her stomach was with her again. It reminded her of something she wanted to tell Phil sometime when they were alone.

TWO hours later they were still I around the table. The big man (his name was Jack Conway, he told them) had told much of his life with the big construction gangs, had heard much of Phil's life too. Mary resented the big man for dragging up the ghosts of a past that she wanted Phil to forget yet she had to admire him. His talk lacked the boastfulness of Phil's stories, but they were the same incredible tales. Something in his way of telling them made it impossible to doubt their authenticity.

She had never quite believed the one about the wolves. Suddenly she had to know. "Phil," she urged. "Tell him about the time the wolves chased you."

Phil told him. Jack accepted it with a quiet nod.

"They say there aren't any wolves as far south as Slave Lake, but I've heard 'em down there. Couple of niggers from the U.S. army along with me at that time. First time they ever heard a wolf. First time I ever saw a nigger turn white!"

Phil chuckled appreciatively. He was having a wonderful time. There were more cigarettes, more coffee; then Phil was saying:

'What are your plans for the winter, Jack?'

Well, I think I'll drift up to Yellowknife as soon as I'm through with this job with the Oil Company. They'll shut down after freeze up, but there's work up at Yellowknife that interests me. Fellow I was talkin' to last week says they're short of Cat men, too."

Mary saw the quick lighting of Phil's eyes, then the droop of his shoulders, a bitterness around his mouth. He had thought again of the life he loved more than anything, and given it up again for her. She thought she saw resentment in his glance toward her, as his dream died, unspoken. It was more than she could bear.

"Phil," she said, through stiff lips, "If you want to go, why don't you?"

He shook his head. "Think you could feed twenty head of cattle?"

"Sure I could. Elsa managed when Tim was in the army, and she had twice as much to look after. You could haul all the feed into the feed yard, and then all I'd have to do would be to throw it over to them and break the ice in the slough twice a

day."
"And Billy would burn the house

down while you're doing it."

"I could get Elsa to let Enid stay here to go to school. She's wonderful with Billy, and I could do the chores before she goes to school and after she gets back.'

"The lady with the lantern," scoffed Phil, but his eyes were kindling again.

Her heart was pounding-Don't go, Phil, stay with me . . . but her head assured her . . . he'll hate you if you make him stay.

Jack wrote an address on a sheet of paper and passed it to Phil. "Company offices in Edmonton," he commented.

WHEN she had made the bed on the couch for Jack she went with Phil to their bedroom. His eyes were burning with excitement.

"Mary, are you sure you could manage if I went to Yellowknife for the winter?"

She kept her back turned to him and forced cheerfulness into her voice. "Of course I can. After all, I managed before you came, didn't I?"

"I could clear ten bucks a day up there. Sure would make a hole in that mortgage."

And, thought Mary, bitterly, you'd want to go just as much if the pay had to go the other way. She thought of the secret she had planned to tell Phil. Now she knew she must never tell him, that she must not let him guess. If he knew he would never leave her alone through the bitter winter, and as he struggled with the chores so alien to him, watching her grow uglier with the passing months, his resentment would grow. Better let him go now, she thought, while he still loves me.

The two weeks while he prepared for his departure were a nightmare to her. Shelter and feed yards were made ready for the cattle.

The night before he went away they sat down together and counted the money that lay in a jam tin buried under a loose board in the cellar. Three hundred dollars. If Phil were to stay at home it could not possibly see them through the winter, put in the crop and keep them going until after threshing. If he did not go there could be only another summer of debt, another harvest spent before it was gathered.

Phil took fifty dollars from the tin. It would take him to Edmonton where he could contact the company officials. "Don't be afraid to use what you need, Honey, we'll be rolling in it by

The inevitable morning came. With a wooden heart she helped him roll his bedroll and pack a change of

He left her without a backward glance. It was as though he could not wait, as though he hurried back again to his first love.

Mary watched until he disappeared. Then a feeling of desolation settled on



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her. She longed for the luxury of tears, but Billy tugged at her skirt and whimpered, so that she had to swallow her grief and go on about the chores, caring for Billy, caring for the cattle, the chickens, the saddle horse Phil expected her to ride for the mail, only she knew she would not be riding.

THE cold, white months dragged ■ by. At Christmas she sent him a huge fruit cake, warm socks and gloves that she knit during the long evenings. He sent her a letter with ten dollars in it, asking her to buy something for herself and for Billy. It was small comfort, for by now she was sure that Phil would never come back to the valley. He would send for her to join him in some of his far away places, he would tell her he had tried to farm for her sake, but he just couldn't make a go of it. And if she could not leave her home that she loved so much, well, it was too bad, and he would send her money, but he would not return.

She knit a tiny white sweater and laid it away carefully, with a pink ribbon and a blue one to add when she knew which would be needed. The thought of it filled her with a strange mixture of comfort and fear. Phil had gone away, but part of him was hers for always.

When she showed the little white sweater to Elsa, her friend's quick s y m p a t h y turned into bitterness. "Mary," she said, "how could he go away when things are like this? Your Phil was a strange man, but he made you happy. We tried to like him for your sake, but it's inhuman to leave you in your condition, doing chores at forty below."

"Oh, Elsa," gasped Mary. "Have you been holding that against him? He didn't know about the baby, and he just wanted the money to get the farm out of debt."

Elsa refused to be mollified. "Money isn't worth it," she muttered grimly.

Mary defended Phil to her friends, but the old fear stayed with her. When his six months at Yellowknife were up he would not return to the farm. Somewhere another big machine would be waiting for its master.

The long, lonely years stretched ahead of her. She would gather Billy into her arms and hold him close to her.

Phil was a man of action, and could never express himself in letters. He wrote that he missed her, he was doing all right, feeling fine. He did not say that he was coming home.

THE March days lengthened. As she fed the cattle for the night she looked at them approvingly. They had come through the winter in good shape, and there was feed left in the corral. Apart from their eight milk cows there were a dozen head of fat stock. The down payment for the tractor Phil had wanted so desperately . . . only now she knew numbly that Phil would not care about that any more. She would probably have to rent the farm to Tim.

She leaned wearily against the corral, pitchfork in hand. The first crow cawed by the slough. Everything was coming to life again for another year . . . everything but her heart.

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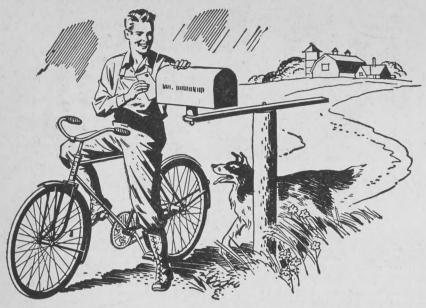
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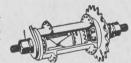
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toward the road. He must be getting used to Tim dropping by to see if we're all right, she thought. The tall figure emerged from the dusk, with Rover frisking wildly about him.

It was Tim, of course. There was nothing to stop him from buying a check shirt and a pair of breeks. But Tim could never walk like that. That free, swinging walk could only belong to Phil, and as she started clumsily toward him he broke into a run, reaching her and catching her closely to him.

"Phil, Phil, I thought you weren't coming back!"

"I only wanted to surprise you, Darling . . . and I'm not going to leave you again. Oh, Mary, are you all right? Why didn't you tell me?"

"I am well, so wonderfully well now that you're here."

Arm in arm they went into the kitchen. Billy was napping on the cot. Phil bent over him tenderly. "What you been feeding him?" he asked, with a break in his voice, "I never saw anything grow so fast."

Later he brought a paper parcel from the recesses of his knapsack.

"Want to see your present?" he asked.

It was a pair of beaded moccasins. Mary fingered them happily. This wasn't a gift that a stakey cat-skinner brought his woman, it was the sort of thing a farmer might bring his wife.

"There was an emerald brooch in Edmonton," he told her, "but I thought the mortgage better come first"

"I'll tell you a secret, dear. I much prefer beaded moccasins."

LATER they lingered over coffee cups far into the night. There was so much to say . . . so many little jokes to laugh over together, so many plans to make.

"I'm afraid I'm a couple hundred short on the mortgage, Mary. I was going to stick it out till I had enough to pay it off, and then Elsa's letter came, and I took the next 'plane south."

"Elsa's letter?"

"Fine thing," he stormed, in feigned indignation, "when a man has to get news like that from a neighbor. Bless Elsa, I think I'll call her up and tell her I'm home."

"Grand," said Mary. "Phil, about that two hundred dollars, there's that much left in the cellar. I really didn't need much. Ike was around yesterday. Says there's a scarcity of fat stock, offered a real good price for ours. I thought maybe you'd make a down payment on the new tractor if you still want one."

Phil's hand closed tightly over hers. "You know, Mary," he said, "I'm glad I married a farmer. It's a lonely life I just came from, and the men that live it are lonely. It's good to be home."

Tim and Elsa dropped in the next evening. As Mary and Elsa lingered in the kitchen, talking women talk and making coffee the men's voices drifted out to them. Phil wasn't talking about Yellowknife, he was saying, "Got to get at the seed cleaning in the morning. I'm sorta behind with the farm work."

And Tim, a new friendliness in his voice, was saying, "I'm pretty well caught up myself. Guess I'll come over and give you a hand."

THE END.



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Farm Auction

Tragedy and comedy mix to make a rare show

by LESLIE MAY

T'S fun to go to a sale. We went to one recently. It was a typical spring day. A blowsy, snowsy sort of a day when the elements didn't know whether to laugh or cry. One minute the sun would be shining brightly, and the next minute it seemed as if Thor himself were treating us to one of his blackest frowns.

The weather being what it has been lately, and the resultant roads being what they are, the prospective buyers came in a variety of conveyances that would have done justice to a county fair. There were cars and trucks, a number of which required the assistance of a tractor to negotiate the worst mudholes. There were also wagons and bennett buggies, stoneboats and two-wheeled trailers, and saddle horses galore. A few came on their tractors and some who lived close enough came on foot.

We were among the latter, and having arrived we stood around for a few minutes getting our wind, and improving our time meanwhile by giving the household goods the once over. Then we moseyed over to where the auctioneer was calling the crowd together around the inevitable hayrack that seems to be the "hors d'oeuvre" of every country sale. In this commodious "showroom" are displayed an endless variety of articles, such as harness and saddles, garden tools and blacksmith tools, spades, shovels and grain scoops; partly used cans of paint, oil, axle grease, barn spray, and what have you. Here you will find post mauls and other fencing equipment, forks and augers and axes, and all the hundred and one gadgets that help to make farming the interesting and instructive occupation that it indisputably is.

A sale, by the way, is a confusion of amusing incongruities. At the cowbarn you find an attractive young woman, inappropriately shod in highheeled patent pumps, examining the dairy herd with lively interest. As the sale of household goods gets under way, you watch what appears to be the oldest man present, buy a baby buggy. Then a bedspread and a bunch of lace curtains are knocked down to a man who needs only a red kerchief around his head and a long knife at his belt, to make him look exactly like a pirate; no doubt he made the purchase for his wife, and you wonder idly what sort of woman she is who had the nerve to marry such a ferocious looking male. But at that she's probably the boss. Presently, some boxes of canned fruit go under the hammer and one of the bidders is a shabbily dressed, bad smelling individual with a shambling gait and a shifty eye, who looks for all the world like a character from "Tobacco Road." Well, even characters from "Tobacco Road" have to eat; too bad there aren't any turnips for sale.

After the household goods have been disposed of, there is a general move towards the backyard, to see the machinery sold. Just as the auctioneer is starting off with: "What'll you give me for this binder, gents?" you hear a commotion on the edge of the crowd, where several men are trying to quell an incipient dog fight, by the judicious application of sundry kicks and cuffs. Next, you notice a harassed young mother, vainly trying to keep track of her brood of small children; she no sooner gets them rounded up than they scatter like buckshot as some new attractions catch their eyes.

Over at the horse barn, a group of young men have made sure of a grand-stand seat for the sale of the horses by ensconcing themselves in the open loft door, where one of them is helping to pass the time by entertaining his fellows on the mouth organ with a somewhat mournful rendition of "Give Me My Boots and Saddle," while, in the barn underneath a couple of men are indulging in a rather heated discussion regarding the age of a certain horse.

PRETTY soon the crowd can be seen coming this way, and after two work teams have been disposed of, an ancient and angular saddle mare emerges from the barn. She is ridden by a very important looking small boy, who appears to be in imminent danger of disappearing into an oversize pair of rubber knee boots. With much slapping of reins and digging in of heels, he urges this animated bonerack into a weary trot in an effort to show off her best paces. After some laughter and rude jokes, the jaded animal is sold for thirteen dollars and fifty cents, at which the small boy-who is evidently the ownerlooks as gratified as though he had just sold a famous racehorse for a princely sum.

It being a chilly day, there is much coming and going to and from an open kitchen window, where the local "Ladies' Aid" is doing a land office business in hot dogs, doughnuts and coffee. This provides such a pleasant interlude for us, that by the time we wander barnwards again, most of the cattle have been sold. Oh well! it's time to go home. We don't know whether it's been a good sale or a poor sale, but from the point of view of the observer it's been a most satisfactory day.



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Continued from page 16

interest. It has been pointed out that six geographic regions have some claim to this water: it is being used in the mountain and foothills areas of Alberta for power generation, forest protection and storage. This could be increased. It can be used more extensively in south-western Alberta for irrigation. The large irrigation scheme in Saskatchewan promises to give a measure of stability and crop insurance to that part of the province. The Cedar Lake area in Manitoba claims the use of the water in maintaining the fur and game sites which have reached considerable economic proportions. Manitoba also claims value for the water in the support of fishing and transport in her lake areas and lastly for power generation.

To ensure that these demands receive proper consideration, a Prairie Provinces Water Board has been set up. Chairman of the Board is L. B. Thomson, head of P.F.R.A. He is assisted by representatives of each of the provinces. It is the objective of the Board to advise on the most efficient use of the water available, by making recommendations to the governments concerned.

No figures are available to show the total potential waterpower of Alberta streams. A minimum of 14 million horsepower has been suggested but the maximum is considerably in excess of this figure. Most of the hydro potential is found in the drainage basins of three rivers: North Saskatchewan, South Saskatchewan and the Athabaska. Development to date has been centred on the tributaries of the South Saskatchewan. It is desirable to bring the sites into production in order from the top ends of the streams as this provides a measure of flood and reservoir control as the new sites are added. In this way they tend to be complementary.

There are five producing sites on the Bow River, above Calgary. Kananiskis produces a firm 12,000 horsepower, Horseshoe Falls 20,000, Ghost 37,450, Cascade 23,000 and Barrier, which was just completed in 1948, 13,500 horsepower. The total drop in the power-producing section of the river is 1,155 feet. Of this, 259 feet or 106,000 horsepower is now

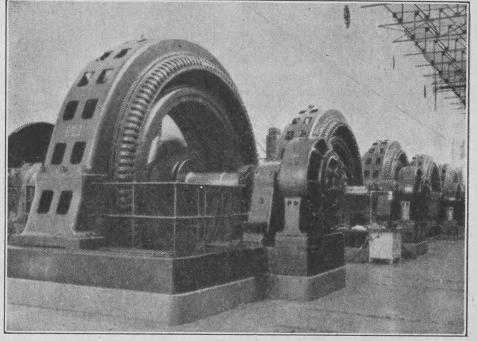
being used and 960 feet is still available; 444,000 horsepower can still be developed from the flow of the Bow River above Calgary. A proposed irrigation canal parallel to the Bow and taking water from the river below Calgary, builds up considerable head before it is brought into the river again. This provides possibilities for use in water power development as well as irrigation.

Little development has yet been started on the North Saskatchewan. Survey parties have done preliminary work and have found desirable sites between Edmonton and Rocky Mountain House. At Carvel, 35 miles southwest of Edmonton, construction of a dam would provide sufficient head to generate 20,000 horsepower. Similar construction at Rocky Rapids would produce an equal amount of power. The mountain streams, which are fastrunning and small, have five additional sites between the mouth of the Brazeau River and Rocky Mountain House. These sites are rated at about 15,000 horsepower each.

The Athabaska River for many years has been considered ideal from the point of view of power engineers. There are ample storage possibilities in its basin to ensure a steady and adequate flow of water. With the great influx of settlement to the area and the accompanying industrial development, the time for harnessing the power resources is approaching. Six attractive sites have been found to have capacities of from 8,000 to 30,000 horsepower and additional installations could be made at greater expense.

Alberta is rich in natural resources. To supplement hydro energy in the easterly parts of the province are coal, natural gas and oil reserves which have not had their limits defined. This power is being generated now and the industry may well be expanded in the future. The shortage of water power in this region is therefore not

Power supplies in Saskatchewan are not as adequate. There are no fast running streams in the province except those which carry the seasonal rushes of water from the mountains. These waters are increased by the local run-off through the area and build up a powerful supply on the Saskatchewan River below the junction of the north and south branches. Large capital outlays would be required to develop the sites and long



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transmission lines would be required to carry the power to the load centres, far to the south. Peak loads and demands for power come during the winter months when the flow of water is at a minimum. Thus, large problems present themselves in the harnessing of this water.

Some development has been seen along the Churchill River. When high transmission voltages are found to be feasible, this source of power will probably be tapped.

A LTERNATIVE means of generation must be found in Saskatchewan. The two most likely are the natural gas of the Lloydminster district and the coal supplies of Estevan. The location of these substitutes is in their favor since the former could supply the northern part of the load area and Estevan generation could serve the south. With the increase in supply of water to the Souris River, by diversion canals from American irrigation streams, the Estevan potential has greatly increased.

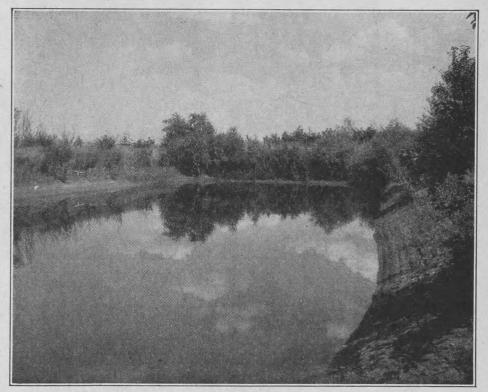
Some people look to the proposed installation on the South Saskatchewan River to provide large amounts of hydro power. This dam would be built primarily for the holding of water reserves for irrigation work. Some power could be sold during the spring and summer, periods of high-water flow. This is not valuable power, however, since stand-by plants must

the Ontario boundary. The limit of output from this area is rapidly being approached. At the present rate of load growth, it is expected that the turbines on the Winnipeg River will supply the power requirements to about 1955 or 1957. Present capacity of the five plants is 466,000 horse-power with a maximum of 594,000 to be installed.

The next development in Manitoba is likely to centre around the Dauphin River project. This consists of a series of canals and dams, diverting the water of the Saskatchewan River to enter Lake Winnipeg from Lake St. Martin. This would bring the forces of the river 200 miles closer to the populated part of the province. The potential of the site on the Dauphin River is calculated to be 250,000 horsepower.

Numerous installations could be made on the Nelson River, north of Lake Winnipeg. It is estimated that two million horsepower are available. To the north of this basin, the Churchill River provides more opportunity for generation but is too far from the centre of population to be practical as yet.

Provincial and national boundaries should not interfere with the efficient use of water resources. The results of planning done by the Prairie Provinces Water Board and the International Joint Commission should be seen in



Nearly 31,000 dugouts have been constructed on prairie farms. They can be made a beauty spot as well as a valuable water supply.

be maintained to take over this load when the water recedes. A large amount of the power would also be required for pumping purposes to raise water from the storage basin to the irrigation canals.

Manitoba is at the lower end of the water courses of the prairies. Unlike Saskatchewan, she has a large storage basin in her chain of lakes. From the lake-level to sea-level at Hudson Bay there is a drop of over 700 feet, as previously described. Thus Manitoba has a large potential as long as the water continues to flow into her storage basins. The lack of sizable developments in this area to date is due to the transmission distances involved.

The power load of Manitoba is presently being carried by generating stations on the Winnipeg River, near the general enjoyment of the fruits of well-developed water resources. It was commonly assumed that the demands for power would recede after the pressure of wartime production had subsided. The recession did not come about but demands have greatly increased. The extent of expansion in Ontario is indicative of the rate at which the demand may grow. In the fifteen-year period from 1917 to 1931, her water power output increased fivefold.

The prairies have great reserves of water power. It is, in general, expensive to develop. When the demand has reached proportions which warrant large capital outlays, and the engineers are able to give us adequate equipment for the long transmission distances, western Canada will enjoy the benefits of her vast hydro resources.



VICTORY OVER WEEDS

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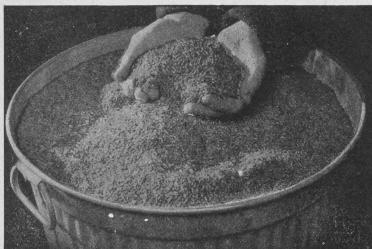
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Other things being equal the neighborhood of farmers that carries out an efficient program of weed control with WEEDONE 2,4-D Weed Killers will make more money per farm than one that neglects its weed control program or does only a partially efficient job with inferior 2,4-D products . . . The surest guarantee of an efficient neighborhood weed control program is for EVERY INDIVIDUAL FARMER to spray with WEEDONE 2,4-D Weed Killers.

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2,4-D WEED KILLER

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efficient and most economical weed control SPRAY WITH The relationship between these two RE-SULTS - (1) the clean growing crop and (2) the clean threshed product is efficient weed control with WEEDONE 2-4-D Weed Killers.



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Note—WEEDONE Weed Killers are manufactured by the American Chemical Paint Co. of Ambler, Pa. and Windsor, Ontario, originators of 2,4-D and 2,4,5-T Weed Killers and Weedone 32 Brush Killer.

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The concentrated ethyl ester formulation of 2,4-D, the original ester that has had more years of field use than any other 2,4-D weed killer. Contains 57.6 ounces 2,4-D acid equivalent per gallon with special wetting and penetrating agents. It sticks rain or shine. Mixes with oil for ideal airplane application. Can be mixed with any amount of water for high or low volume application. Requires lower amounts of acid per acre for equal results.

A concentrated liquid alkanolamine salt formulation of 2,4-D. Contains 76.8 ounces of 2,4-D acid equivalent per gallon. Completely soluble in water. Will not clog nozzles. Easier on crops than ester formulations. Will not injure adjoining crops except in case of drift.

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Mechanical Bait Spreader

Agricultural engineers at Saskatoon develop new grasshopper bait spreader

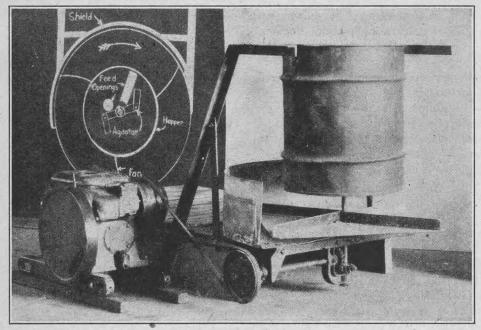
THE need for immediate planning to combat the grasshopper invasion was outlined by H. E. Wood of the Manitoba Department of Agriculture in the April issue of the Country Guide. Research work was undertaken last winter by the Agricultural Engineering Department of the University of Saskatchewan to study the machines available for the mechanical spreading of bait. The results of this work have been published in a bulletin entitled Grasshopper Bait Spreaders which may be obtained by writing to the university at Saskatoon.

One satisfactory machine developed by the Saskatchewan engineers uses a combine straw spreader. A 34-inch shaft runs up through the centre and

braces to the 2x4 hold the drum four inches above the spreader blades.

A set of bevel gears are used to turn the spreader. They are driven by a 11/2 to 21/2-horsepower engine and should rotate the spreader at from 400 to 500 rpm. The top of the shaft is held in the 2x4 to prevent vibration. The rotating mechanism is balanced as closely as possible. A base of light gauge sheeting is placed under the spreader to protect the gears. The shield at the back is 10 inches high and covers two-fifths of the circumference of the spreader, allowing one inch clearance from the tips of the

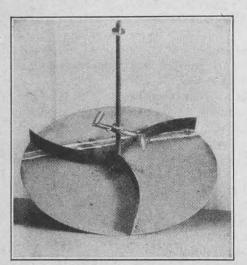
This unit, mounted on a truck, will spread a 50-foot swath applying three to five gallons of bait per acre. The



The Saskatchewan University bait spreader with a diagram showing the arrangement of the feed openings, hopper, shield and blades.

carries the agitator. The agitator is a 1x1/8-inch strap iron, welded to a collar so it extends four inches on each side of the shaft. "Hammers" are riveted to the ends of the strap iron and should reach to within half an inch of the edge of the hopper. The collar is fastened to the shaft so the hammers will rotate half an inch above the feed openings-raising them decreases the rate of feed.

The hopper is made from a small steel drum, 18 inches in diameter. It is cut down to be 24 inches high. Two feed openings are cut in the bottom, a rectangular slot two inches by six inches and a hole two inches in diameter. The bait from one is thrown to the left and from the other to the rear and right. The hopper is bolted to a 2x4 across the top. Angle iron



Home-made blades which are curved to spread the bait over a wider swath.

hopper has capacity for travelling one-half mile at 12 to 15 miles per

If the spreader is being built specifically for the job, it is preferable to use three curved blades in place of the four straight ones. This arrangement gives slightly wider coverage in each swath. A V-belt drive can be used by putting a quarter-twist in the belt but care must be taken to space the pulleys far enough apart-about 40 inches for 7-inch pulleys.

Numerous styles of machinery have been developed and adapted by farmers to suit their own needs in spreading 'hopper bait. Many more will be built along lines quite different from the machines shown. Some general recommendations are suggested in the Saskatchewan bulletin: Iron is preferable for the base, hopper or box as it makes cleaning much easier and will not soak up the poison from the bait. A table of from 30 to 36 inches diameter should rotate at from 400 to 500 rpm and is more suitable than a smaller table operating at higher speeds. Blades should be 11/2 to four inches high. Curved blades give wider coverage. Leather tips can be riveted to the blades if required for cleaning. The hopper should have two feed openings and is best positioned about four inches above the spreader blades. Solid agitators are not suitable. Grain blowers have been used and some with considerable success. The bait should be blown out into the wind for best coverage.-R.G.M.



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only utensils you need are one half gallon can or jug and a one gallon kettle.

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Pour 10 oz. of Gillett's Lye into container holding $2\frac{1}{2}$ pints of cold water. Stir until lye dissolves and leave to cool. Meantime melt 4 lbs. of grease, tallow or lard, and leave until nearly cool, but still in liquid form. Now slowly pour the dissolved lye into the grease (not the grease into the lye), and stir until lye and grease are thoroughly combined.



When mixture reaches the consistency of honey (after from 1 to 5 minutes of stirring) pour into a mold — a wooden box will do lined, with factory cotton to prevent soap from sticking. Cover with blanket or carpet and leave in warm place for one or two days, then turn out and cut up as desired. The longer soap is kept, the better it will be.

TO ASSURE SUCCESS

The grease must be clean and not salty, and must not be above 120°F. (warm to the hand) when the lye is

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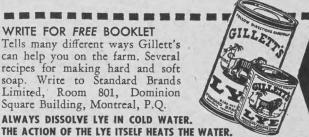
WRITE FOR FREE BOOKLET

added. The lye must be allowed to

cool until it is no warmer than 80°F. Unless directions are closely followed the resulting soap may be streaky in appearance. If this occurs, crumble down as small as possible, return to pot, add 3 pints of water. Bring slowly to boil, stirring thoroughly, and allow to simmer until whole mass is of a thick consistency. Again pour into mold and allow to stand for at least 3 days, covered as before.

LYE FOR ALL CLEANING

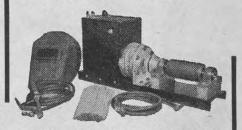
Besides making excellent soap, Gillett's Lye will speed and ease your home and farm cleaning in many ways. A solution of 3 tea-spoons of Gillett's to a gallon of water cuts through grease, digs out dirt, thoroughly deodorizes. Gillett's Lye is particularly recom-mended for use in farm buildings housing poultry and animals, and also for cleaning milking machines, separators and other dairy utensils. It not only cleans thoroughly, but also disinfects, killing certain bacteria and other agents that can cause disease. Use Gillett's regularly to protect the health of your herds and flocks.



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Bluenose Deputy

Continued from page 7

acre, the main chance of increasing net return was by cutting costs.

The idea behind the Swift Current Experimental Station grew out of a Dry-Farming Congress. A committee appointed by the Saskatchewan Government, after studying the needs of large areas in the southern part of the province, recommended that the Dominion Government establish a station in an area of low rainfall, and in 1920 the Dominion took over a school section at Swift Current for the purpose. In the following summer, considerable land was broken and a house and barn built. It was at this stage in the station development that Mr. Taggart was named superintendent and given the task of selecting a staff and laying plans for the program of experiments needed.

The original idea, incidentally, had been to make the Swift Current project a semi-demonstration station, because it was generally believed that the principles of dry farming were already known. Based on the theory that soil water was mainly lost through its rise by capillarity and its subsequent evaporation from the surface, the dust mulch was thought to be the secret of conserving the precious water needed to produce crops.

To this concept the newly appointed superintendent could not give wholehearted support. He had seen cultivated lands blowing in 1919 and 1920 -the wind erosion that was to be heard so much of in the '30's-and felt certain that the dust mulch was not the answer. If this was true, then it was up to someone to find out what the answer was; and this called for experimentation before demonstration. Shortly after taking up his new duties, therefore, Mr. Taggart left for Ottawa to work out with officials at the Experimental Farms headquarters an experimental program.

ASIC to the program begun at Swift Current in the spring of 1922 was the general consideration that Canada possessed, in southwestern Saskatchewan and southeastern Alberta, an area that was dry by nature; that these factors were beyond man's control; and that if the good lands of that area were to support a farming population it would be necessary to learn how to live with what Nature had provided. The most important element in farming in this area was water, of which there was never enough, and the secret of profitable crop production was evidently to make the best possible use of what rainfall was available and so manage the farms in the area that costs could be kept to an absolute minimum in keeping with the low anticipated peracre yields.

The most important project undertaken at the new Station when work really got under way in 1922 was therefore a study of the use of water by crops, and Mr. Taggart was fortunate in finding in Sydney Barnes a man capable of pioneering this new study. Everything was yet to learn—which crops used most water, in what period of their growth, what effect fertilizers might have, the effect of one crop following another on water use. New techniques had to be developed.

new large-scale laboratory equipment designed, and in these fields Barnes was supreme. Those who have visited Swift Current will remember the tanks used in this work—filled with soil and supporting plants grown under field conditions of rainfall and sunshine, but capable of being lifted and weighed to measure the soil moisture.

This work led to the expression of the water-efficiency of a crop in terms of dry matter produced per pound of water used, and within a few years Messrs. Taggart and Barnes could say that, on the average, it required roughly 20 tons of water to produce a bushel of wheat on summerfallow and 30 tons on stubble.

Staggering figures — until it is realized that a one-inch rainfall on an acre represents some 113 tons of water, and that the eight inches of rain looked for during the growing season in even that dry area represents some 900 tons of water per acre. Such figures, however, effectively disposed of the idea that the dry farming problem could be solved by means of a sprinkling cart: More, they were so striking that they focused attention in a way that might not otherwise have been possible.

OST of this soils-and-crops work IVI at Swift Current was with wheat, not because of any particular love of wheat as such but because experiments quickly showed that wheat had the highest water-efficiency among the cultivated crops suited to the climatic conditions of that area, standing drought better than oats or barley and much better than grass. In waterefficiency, however, wheat was beaten by Russian thistle; and it was startling to discover that good healthy Russian thistles established at the rate of one plant per square foot in a field, could cut a potential 25-bushel wheat crop to five or six bushels per acre through the simple fact that the thistles drank up the precious water needed to produce the wheat.

With water conservation and control of soil drifting the imperative requirements of the dry farming system, unorthodox advice began to flow from Swift Current. Plowing, both fall and spring, was questioned under conditions met with in this area, as was any form of deep tillage. The problem shaped up into one of controlling weeds that stole needed moisture and at the same time preventing soil from drifting. Provided weeds could be controlled, cutting down on both amount and depth of cultivation were factors in reducing danger of soil drifting-and had the highly desirable effect of cutting cultivation costs, the factor that had appealed to Mr. Taggart in his interlude with the Ford Company.

It is now pretty well universally accepted in the drier areas of the prairie provinces that the proper place for the stubble and trash from the last crop is on top of the soil, to give protection against wind and water erosion; and to place it there instead of trying to bury it, takes less horse or tractor power.

Along with these lines of agronomic thinking, came developments in the farm machinery field that were nicely timed to the needs revealed by these Swift Current experiments—the combine and the one-way disc and still further refinements in tractors. The agronomic experiments showed what

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to do; these new pieces of farm equipment provided a means of doing it.

It is interesting to know that the tiller-combine, so widely used today, had its birth at the Swift Current Station-at first a crude combination of a one-way disc with a seed box. The Swift Current Station has now become known for its interest in mechanization-tractor testing and the like-but the original interest, and possibly the primary interest even now, in farm machinery at this Station is not so much in machines as such, but rather in what they have to offer to meet agronomic needs as revealed by experiments with soils and crops,

Before I leave this Swift Current phase of Mr. Taggart's career I should mention one more of his valued helpers in those early days. H. J. (Shorty) Kemp did the plant breeding work, and his early interest in pithy-stemmed wheat for saw-fly resistance paved the way for developments in this field that are now bearing fruit.

TR. TAGGART has always held M strong views on the importance of the provincial as well as the federal services to agriculture. When, about 1928, Dr. Hedley Auld, Deputy Minister of Agriculture for Saskatchewan, called together his agricultural representatives to meet with workers from the university and representatives of the Dominion Department of Agriculture located in Saskatchewan to lay plans for the handbook known as "Guide to Farm Practice in Saskatchewan," Mr. Taggart headed the federal group. At that time and since, his attitude has always been that it is the part of the Dominion (through its experimental farms and science laboratories) to get information, but that this should then be fed into the provincial extension services for local application.

Possibly because of this attitude and his ability to get along with people, Taggart always worked closely with the provincial department during his days at Swift Current. This association became particularly close in the early thirties, when depression prices for farm products, coupled with drought and other plagues, placed the farmers of the prairies in particular in a very tough spot. To add to their ills, the year 1933 saw serious grasshopper infestations throughout much of Saskatchewan, and Mr. Taggart was drafted into a provincial committee set up to meet the invasion.

It was probably this experience that first gave him the idea of entering the political field. His energy, organizing genius, and personality helped him win for his grasshopper control program the support of even those farmers who were embittered by the series of disasters that had struck this great farming area. And if he could get their support for this work, why not seek it in the larger political field where there might be more chance of grappling with some of the more basic problems that the depression had thrown up?

In any case, in 1934 Mr. Taggart gave up his post at the Swift Current Experimental Station and entered the Saskatchewan Government as Minister of Agriculture, a position which he held for ten years.

They were not easy years, particularly during the Thirties. Disaster piled

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on disaster—low prices, soil drifting, drought—culminating in the year 1937, when an all-time low was recorded for wheat yield in Saskatchewan averaging about 2½ bushels per acre on the average and when possibly 10 million out of the 14 million acres seeded to wheat were never harvested. Relief schemes were the chief business of the Provincial Department of Agriculture in those very bad years, and the work of the Minister of Agriculture represented a major administrative job.

It is notable, however, that Mr. Taggart persisted throughout even the worst of those years in his declared conviction that Saskatchewan was not finished as a great agricultural area; and that it would come back with production that would equal or surpass anything it had seen in the past. His invariable advice to farmers was that they should stay with their enterprises—advice that has been vindicated by the history of agricultural production in the war years and since.

Mr. Taggart's activities at Ottawa over the past decade are too well known to need repeating herehis wartime work as chairman of the Meat Board, his contribution as foods administrator with the Wartime Prices and Trade Board during 1941-43, and his postwar guidance of the Agricultural Prices Support Board. For these and other services he was made, in 1946, a Commander of the Order of the British Empire. In 1947 he was appointed Director-in-Chief, Agricultural Services, in the Dominion Department of Agriculture; and finally, on March 1, 1949, his selection as Deputy Minister of Agriculture for Canada was announced.

What the future may bring in the way of problems for the new deputy minister is, perhaps fortunately, hidden from the sight of puny mortals. Those who knew Mr. Taggart and his work during the days when he was in the West, however, and particularly those who watched him tackle the problems of dry farming during his Swift Current days or the problems of relief administration as Minister of Agriculture for Saskatchewan in the depressed Thirties, will probably agree that Prime Minister St. Laurent made no mistake when he chose Taggart for his new post.

Drought - - -

Continued from page 13

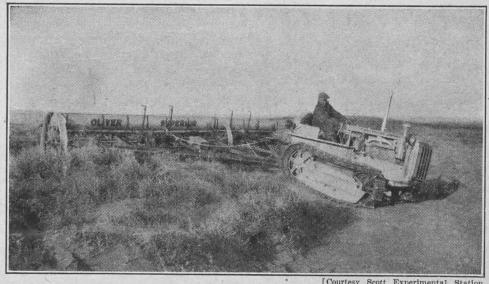
keeps more than two billion human beings and unnumbered other creatures, both plants and animals, alive.

All the large continents are in the northern hemisphere, while the southern hemisphere is mostly water. The oceans are cooler in summer and warmer in winter, than the land; and also because there are powerful contrasts in temperature between continents and oceans, between hemispheres and between tropics and poles, the atmosphere is always in motion. It is by this motion that the moisture-laden air from over the oceans is brought to the interiors of continents.

There is another factor, only partly predictable, which is important. The heat of the sun varies not only from day to night and from season to season, but also in the actual amount radiated. There is a relationship not completely understood as yet, between the amount of solar radiation and the occurrence of droughts. In this, sun spots are a factor, because in periods when they are numerous, the sun's heat is hotter than when they are fewer.

All this is very interesting, but it doesn't necessarily mean rain where and when we need it. The sun draws up moisture from the oceans and because of frequent and powerful differences in temperature, winds are created which drive the moistureladen air across the land. So what! Unless the moisture in the clouds is condensed and falls as rain, it is only an interesting phenomenon. Actually, it is quite possible for such moistureladen air to pass over the land and out to sea again without any rain forming. This probably happens more than once during a period of widespread

The failure to make rain is really a failure of warm, moist air to cool off. Warm air can hold more moisture than cold air. When it cools it is compressed and when it is compressed enough, the moisture is squeezed out of it and falls as rain. Warm air from the Pacific, for example, strikes the western slopes of the Rocky Mountains. The wind forces it up and over, but as it rises it is cooled and rain or snow is likely to fall in the mountains, though none may fall on the eastern side. Sometimes the mountain is cold air instead of rock. Rain falls just the same, but since the mountain of cold



[Courtesy Scott Experimental Station.

Tractor in a choppy sea.

Reclaiming land, Progress Community pasture, May, 1939.

63

air can move around, the rain doesn't have to fall in one place only. Masses of cold air move down across our continent from northern Canada and meet masses of warm, moist air from the Atlantic, or the Gulf of Mexico. When they meet, the warm air cools and rain falls, but it may fall in many places, as different bodies of warm air are forced up over the cold air. A shower of rain cools off the air. Why? Because cool air has met warm moist air and cooled it off, thus creating rain.

VERY little of the cool air from the north carries much moisture, because it has been wrung dry of moisture as it crossed the mountains. This means that most of the ocean moisture reaching the interior of the continent comes from the Atlantic and the Gulf of Mexico. When the weather is droughty the continents are relatively warm and the oceans relatively cool. Then the flow of air is primarily outward from the continent to the Atlantic Ocean in the northeast and the air coming from the south is deflected eastward by the rotation of the earth and also by air currents coming over the mountains in the southwest, and from the Mexican Plateau.

Primarily the contention of the author is that the national rainfall of the United States is under the control of the Pacific; and he states that the Great Plains, lying just east of the Rockies, are more strongly under the control of the Pacific than any other part of the United States, except that portion lying between the mountains and the coast. During the winter, and also at other times when the dry winds from northern Canada flow down and the moist winds from the south are blocked farther south, the southern plains may receive a satisfactory rainfall, while the northern plains are suffering from drought. The reverse may also be true.

One of the factors in the drought situation about which this author seems to be most certain is that the Pacific Ocean is the culprit. He contends that partly because of its great size and also because of the development of a cold ocean current off the Pacific Coast of the United States, the Pacific exerts a tremendous regulating effect over the atmosphere; and this power, he says, "is applied to the eastward in the direction of the normal circulation of the atmosphere." The southward drift of water along the Pacific Coast brings, at certain seasons of the year, a great deal of cooler water from the depths to the surface "and the stronger current produces lower temperatures." While the temperature of the Pacific varies only by about ten degrees as between winter and summer, it is the relative temperatures, as between ocean and land, which are significant.

Land temperatures change quickly and vary widely. The ocean resists temperature changes. Checking these facts about cold Pacific Ocean currents, with the direction of atmospheric drift and the facts of rain formation, and comparing barometer readings (atmospheric pressure) at Portland, Oregon, with the national rainfall in the United States, the author finds a close parallel between the latter two and "strongly suspect(s) that the Pacific Ocean is the monster in the backyard

which seems to control our national rainfall, exerting a power that is second only to the sun itself."

"It seems clear," he argues, "that when the Pacific is relatively warm at any season, and there are frequent movements of cold or cool air from Canada to the United States, the rainfall in the United States is increased. When the Pacific is relatively cool at any time of the year, the overflow into the continent is reduced. In this case cold air masses moving from Canada are infrequent and rainfall is deficient."

It is often hard to be satisfied with an explanation of some recurring phenomenon which fails to explain everything one would like explained. Author Tannehill frankly says that complete information is far from available. What he does seem to make clear is that for agriculture in the United States-and presumably elsewhere-the amount of rainfall required is in a position of delicate and critical balance. The average rainfall in the U.S. is about 29 inches per year. Thirty inches means good crops, while less than twenty-eight inches will produce serious droughts in some parts of the country and less than 26 inches "has most serious consequences." The decade from 1930 to 1939 saw rainfall averaging 28 inches in the United States; and it also saw crop failures, dust storms and substantial shifts of population.

WE in western Canada also remember the crop failures, the dust storms and the shifting population. We remember the dried-up sloughs and lakes, the glowing headlights on cars in mid-day, the soil moving across the highways in a myriad of rivulets, the re-seeding of millions of acres, the debt adjustment boards and all the social and economic wreckage of drought. We are glad to know that the study of drought is continuing; that some light is being shed on a world-wide problem which strikes at the farmer first; and that these periodic visitations are not matters of blind chance, but natural phenomena which lend themselves to study and ultimate understanding. Author Tannehill's concluding words in the volume are at least encouraging:

"The pattern of world rainfall is vital to human civilization. Time has scrawled a bold but cryptic message, alternately dry and moist, on the fossils of flora and fauna of the ages, and finally on the gravestones of civilizations. The scrawl continues and at last our thermometers, rain gauges, barometers, rawinsondes and other instruments are beginning to decipher the story. The record shows unmistakable evidence of the interactions of atmosphere, oceans and continents, under the basic control of the sun.

"In the future, farmers will not have to gaze despairingly into a clear sky, wondering if a few clear days will continue into a disastrous drought. Even if we are never able to control the climate, much will be gained by knowing what to expect. Droughts are not mere chance occurrences; they are part of a physical process which can be measured and studied and predicted with increasing precision, as our observations of the sun and the upper air and the oceans continue to accumulate,"



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Veterans Settle At Fort St. John

Promising outlook for a group of forty settlers on a former Indian Reserve

GREAT deal of effort has been required since the war, to obtain sufficient suitable land for veterans desiring to settle under the Veterans' Land Act. The limitation of total individual loans to \$6,000, of which only \$4,800 may go for land, buildings and \$1,200 for equipment, has made it difficult in some cases to get suitable land. The V.L.A. Administration has scoured the country, with the aid of provincial advisory committees, and in some cases provincial governments have set aside sizable tracts of unbroken land for this purpose.

One of the most interesting and in some ways the most likely schemes we have contacted is under development in the Fort St. John area of British Columbia. Fort St. John lies approximately 50 miles north of Dawson Creek along the Alaska Highway. In the general area, there is contained about 150,000 acres of potential farm land. As yet, however, not more than approximately 12,000 acres is cleared and only 8,000 acres broken. About 1,000 farms are already in operation in the area, which is perhaps 30 miles north and south and 50 miles east and west, centering on Fort St. John itself.

Within this area there lies a tract of approximately 28 sections, or four by seven miles in extent, which was formerly an Indian Reserve, owned by the Cree and Beaver Indians. The game and fish has pretty well disappeared from the Reserve and the Indians seldom used it. It was deemed suitable for land settlement because the soil was fairly good, the tract was not too badly broken up, and it has easy access to Fort St. John itself. Consequently, the Reserve was purchased from the Indians who were given other lands, in addition to a cash payment.

To this writer at least, one of the most interesting features of this settlement project is the fact that the whole area was carefully and thoroughly gone over before it was opened to veterans for settlement. In going over it, the lie of the land, the quality of the soil and other features were carefully considered with a view to

dividing it into what would prove to be economic farming units. The result was, according to Kelly Hogan, V.L.A. Supervisor for the area, a division into 43 lots of land, ranging mainly from 320 to 480 acres in size, but in one case containing as much as 640 acres owing to an unusually high proportion of rough land. The effort was to provide about 240 acres of arable land in each unit.

WHEN The Country Guide visited the project last August, 23 of the possible 43 veterans had had their settlement plans approved and 21 had initial clearing and breaking completed. One veteran had not shown up after approval had been granted to his selection. A few of the veterans who were bachelors or perhaps were married, with families, had as yet been able to provide no living accommodations and were not actually living on the land.

Each prospective veteran settler was under obligation to make his own selection of land. This meant that he was expected to go over the unselected pieces carefully, take into account the quality of the soil, the acreage in the unit, the amount of rough land that might not be cultivable, the convenience of the parcel and the type of farming he might have in mind to follow. If, for any reason, he found himself undecided and in need of advice, the District Agriculturist of the British Columbia Department of Agriculture, R. W. Brown, was always available, or Mr. Hogan himself.

Once the selection of the unit has been approved for a veteran, the next step is to arrange for getting it cleared and broken. Clearing has not been much of a problem on most of the units, and the average cost up to the time of my visit was \$2.45 per acre. The cost of breaking varies somewhat with the nature of the land, but the average cost of breaking to a depth of four and one-half to six inches was \$7.40 an acre. This has meant that clearing and breaking combined has cost an average of less than \$10 per acre, which was pretty satisfactory and



R. W. Brown, district agriculturist, Ft. St. John, B.C., E. C. Stacey, superintendent, Dominion experimental station, Beaverlodge, Alta., and Kelly Hogan, V.L.A. supervisor, Ft. St. John, talk with L. G. Cavers on the veterans' land settlement project.

in most cases left the veteran with an appreciable portion of his loan for buildings and water supply.

When each unit of land was separately valued, so as to charge each veteran what was felt to be a fair proportion of the total cost of the entire tract to the V.L.A., the price of the various units varied considerably. The range of tracts of 320 to 480 acres was from about \$750 to \$2,200 per unit. At the latter figure, there would still be left \$2,600 of his original \$4,800 allocated to land and buildings. If 100 acres were cleared at \$10 per acre, there would still be \$1,600 left for buildings and water supply. At the time of my visit an average of 95 acres had been cleared and broken for 21 veterans, although the acreage cleared for each individual might vary from 50 to 150 acres.

The veterans are strongly urged not to break more land than could be prepared for crop and actually seeded.

THE soil in the tract is of fairly I good quality, described as a brown clay loam and in that area it is the experience of successful, longtime residents that breaking should not be continued, if possible, later than July 31. In 1948 the first furrow was turned on the project on June 6 and the last of 2,000 acres was broken by July 31. Generally speaking, clearing and breaking is by contract and while the veteran is encouraged to arrange for his own contractor, occasionally an arrangement is vetoed by the supervisor because the price agreed on is too high, or for some other reason which will work out to the advantage of the settler. It is worth noting, too, that up to date all the veterans had worked very hard and were on the job where they were required to be while the development was under way.

After clearing and breaking is completed the veterans may, if they have the necessary equipment, take over from then on, but at least up to the time of my visit contractors were prepared to disc down the land for \$1 per acre. An occasional veteran has his own tractor. One of these whom we met, L. G. Cavers, a young man of farm experience raised in Saskatchewan and holder of a 480-acre unit, was doing his own post-breaking work with a Massey-Harris 30 tractor, and was using a log floater. He also possessed a four-foot one-way. There are no stones in the land and some of it, which had already been worked down, looked to be in excellent condition for seeding this spring.

Some of the veterans already had erected small houses of a temporary character and were living on the tract. Access by road was quite satisfactory as a result of co-operation by the Provincial Department of Public Works. This department made the necessary roads through the settlement and not only put in the approaches to each farm, but supplied

culverts where required.

In some respects the experience following World War I was not too happy for many veterans. The present scheme is broader based, more flexible, and promises to be more successful. Substantially more veteran land settlement is occurring in the western provinces than in the East and the northern settlement at Fort St. John, B.C., seems to have made an auspicious beginning.-H.S.F.

Farm Service Facts

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ADJUST HEIGHT OF SPRAYER BOOM TO GET EVEN COVERAGE OF SPRAY

the boom.

happens with various heights of turer.

It pays in results to check care- boom settings. If the nozzles are fully to see that you are getting too high, parts of your field will complete and even coverage with receive double coverage. If they the proper amount of 2,4-D. are too low, strips will receive Coverage is dependent on the no spray, leaving the weeds to spacing of the nozzles and the flourish. Check boom height by angle of spray. These two factors observing spray coverage and by determine the required height of measuring the height of nozzles from the ground to be sure it is as

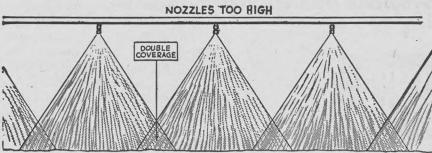
The illustrations show what recommended by the manufac-

CORRECT HEIGHT OF NOZZLES

Where nozzles are 20 inches apart and spray at an angle of 65 degrees (which is the most common arrangement) the correct height is 15½ inches.



It pays to check carefully on a test strip to make sure all foliage is being covered.



When the cones of spray overlap, part of the crop receives double coverage, wasting material and exposing crop to possible damage.

Keeping Filters Clean Pays

Failure of one or more nozzles to work right will cause skips and misses. Trouble of this sort can operating delays.

Adjust Pressure to Tractor Speed

The number of gallons applied less chemical will be applied un- ging of filters and nozzles.

less the pressure is raised to compensate for the change.

Avoid Over-Concentration

When refilling your tank with be reduced to a minimum by using 2,4-D, measure the quantity of water that is thoroughly clean or, solution remaining in the tank so at least, well strained, to prevent you know the exact amount of clogging of filters and nozzles. water you are adding to fill. Then By keeping close check on nozzle add only the amount of 2,4-D delivery, and washing filter screens necessary for proper concentrafrequently to remove accumulated tion in the water that has been dirt, you will get more even dis- added. Thus you will avoid overtribution of spray and avoid concentration of 2,4-D. A measuring stick is helpful for this.

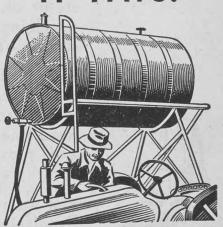
CAUTION: Many owners of sprayers may be planning to use their equipment to spray with per acre depends on two factors, hoppers. If the inside of your tank toxiphene or chlordane for grass-1) speed of travel and 2) pressure. is painted, these solutions may If the speed of travel is increased, remove the paint and cause clog-

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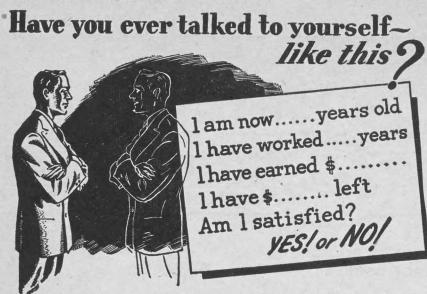
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Story Of A Hat

Alberta's distinctive headdress by MARY ELIZABETH LEMKE

THEN the Stampeders won the 1948 football championship the colorful cowboy regalia of the Calgarian rooters caused the easterners to raise admiring eyebrows. A major part of these costumes were the huge Stetson hats-trademark and crowning glory of the cowboy. The first Stetson hats ever to be made were called "Boss of the Plains."

It was John B. Stetson, son of a Philadelphia hatter, who in the 1860's first began toying with the idea of a particular style of hat to symbolize the western section of the country. He had gone West seeking a cure for a tuberculosis condition and one evening while he and his companions were seated around a campfire in the chill night air of the Colorado plains the talk turned to a discussion of appropriate clothing.

Appropriate—the word gave Stetson an idea. With a hatchet and other makeshift tools he converted rabbit fur into felt and fashioned from this a big wide-brimmed hat-a hat that would afford a man protection from sun, rain or wind. Stetson wore the hat himself and it became a thing of good-natured ridicule among the mining camps. Stetson didn't mind, it was comfortable-and appropriate.

One day a cowboy was riding past the camp and seeing the queer hat asked to try it on. When the cowboy put the hat on his head Stetson stepped back with eyes gleaming enthusiasm. Here was his new creation in its rightful setting-providing a dashing yet practical finishing touch to the apparel of the rugged cowboy on his silver ornamented saddle astride a spirited horse. The cowboy liked the effect too and Stetson sold him the hat for five dollars.

When Stetson, with health regained, returned to his Philadelphia hat store he resumed his work of making ordinary hats. But a vision of the cowboy in his wide-brimmed hat kept crossing his mind and then a notion struck him. He made several large, natural colored felt hats and sent them out as samples to dealers in the West. One cowboy had liked the hat; why not others in the lands of ever expanding cattle kingdoms? He named these hats "Boss of The Plains."

IN a matter of weeks orders were flocking in from all parts of the West; the Texas Rangers had adopted the new style hat-"Boss of The Plains" was a hit. Stetson soon suspended making any other but "Boss of The Plains"-the all-purpose hat of the cowboy who used it for everything from a drinking receptacle or a horse blindfold to a dummy target in a gun battle. And all it took was a couple of slaps to put it in shape for a topper for Saturday night finery.

Even in western fiction the Stetson hat has become practically traditional and is as much a part of the rootin' tootin' western story hero as his trusty

John B. Stetson made hundreds of thousands of these Western hats. He died in 1906 at the age of 76 but the cowboy Stetson he created has survived time and change to remain a definite part of Western dress and the proud trademark of the cowboy.

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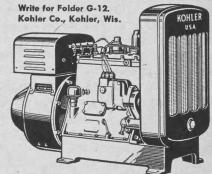
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The Hunting Horn

Continued from page 12

ought to be. He could put a cedar box to his mouth and imitate a wild gobbler or an amorous hen until all the wild turkeys for a mile around would be strutting and craning about so close it was murder to shoot them. With only a bandanna tied over his mouth, he could go into a wild bee tree and scoop out the honey with no more to-do than a black bear. He could kiss the blade of a four-pound axe, jump out of one barrel into another, and jog-trot all day long behind his dogs.

He was "given to drink" though, and people all spoke of him as "that no-count Dewey Bingham." They said he'd never be anything and never have anything. But ever since I was a patch-seated kid I'd had free run of Dewey's cabin down at the bend of the river, a wonderful place where dogs, squirrels and jays came right in and made free with things. I'd learned woods knowledge from him. Once he'd given me a pet coon. All that he did was right with me.

Dewey made only one or two bad breaks at the supper table, like when he brought up some escapade that Father would rather not have remembered just then. He shook and whinnied over it with sounds like an old stallion makes when he hears some mares, until Mom got up with a sort of sniff and fetched more stew meat. And at the end of the meal no one could head him off from that fearful perennial boner of his in praise of Mom, of whom he stood in strange awe.

"Thanks kindly fer supper, Mis' Calloway. Grandpa's toenail slipped an' tore the sheet again! Like I always say, you got 'em all stopped fer cookin', up an' down river—money, marbles, or chalk!" And that windy whicker again that set Mom, with her neat white apron, all on edge.

DARKNESS came as we sat out on the porch; a big-bellied moon rose yellow above the river cypresses, and Mom went to her room as soon as she could get away. Father and Dewey talked over pipes in the dimness while I crouched on the top step hugging my knees, and Old Blaze lay near, his big head raised, his big feet out before him, watching the night, while the other dogs slept beneath the porch.

There was real woods talk, reminiscences of old hunts; of the time Old Blaze ran the last bear in the Cane River country and fought it out with him to a finish while the other dogs yelped and howled around, not daring to go in; of the time Dewey and Father were swimming the river after a renegade racoon and the coon came up beside them in midstream and tried to drown Dewey by shoving his head under water.

I could have joined in their talk; I was old enough now. I'd been out with them on many a night hunt, shining coons or horn-talking the hounds as they ran some fox through the hills. But as vast pride filled me to repletion, and I was filled with that hawklift of the spirit that I knew only with Father and Dewey and Blaze, it would have been sacrilege to break the spell with a single word of mine.

They spoke finally of the cross fox, and I learned what I'd not guessed before, that they were going to run him to a fare-ye-well next day. The long-suffering poultrymen up and down river had all agreed that the cross had wassailed his way through the country "till hell wouldn't have it," and they were crying for his scalp. He'd never yet been run in dead earnest by a true, cold-nosed tracker. Now he was going to be. Tomorrow Dewey was going to put Old Blaze onto him and make him stick.

The talk went on for hours, Dewey and Father passing a flask between them from time to time. The night was timeless and out of this world for me. I thought of Kit Carson and the Indian wars; Simon Girty, the white renegade; that brave boy in the Bears of Blue River. Then Father was talking about my part in tomorrow's hunt: "Each man's got his hands full tomorrow, Dewey. One of us has got to come up along Hat Creek in the morning, to make sure he don't double back north. That'll be Roddy's job."

Each man! I was silent and more stolid than ever, holding against the tide of feeling.

And then, just as we rose to turn in, there came a wild, high yapping through the dark. It came from the crest of a hill two hundred yards back of the house. It is impossible to describe the jeering laugh of the cross fox's cry. He knew we were all there, knew what was on, and he sounded his cheeky challenge with a mocking insult that brought the dogs to their feet

Baldy and Nell rushed out from under the porch, bawling and blustering with big war talk. But Old Blaze just lay where he was, motionless except for a pricking of the ears.

I didn't sleep much that night and I was dressed when I heard Father stirring. We had eaten eggs and bacon and were on our way when the first salmon light tinged the east; the moon, big as a cartwheel, was still in the sky. The ground was frozen hard. Frost fuzzed the grass and weeds along the trail and turned the barbed wire of the pasture fence into strands of silver.

Father and Dewey carried their guns, an axe, and a lantern, some rope and Dewey's hunting horn. I carried a package of lunch. I hurried along behind, all excited and holding back the questions I wanted to ask, for fear Dewey would laugh and Father be ashamed.

THE other dogs ran ahead. Once Baldy put his nose to the ground and slipped into the black shadows of an alder thicket, but Dewey called him back. Said he had scented a coon; he could tell by the way Baldy acted.

Both Father and Dewey were different men away from the house. Something of the majesty and secrecy of the forest descended on them; all hurry was forgotten, for the day they walked through meant more to them than their destination.

Soon we separated and spread out to the positions agreed upon. I crept up the winding course of Hat Creek, where the black, still water ran through cane and alder, following the queer paths the cows had made through the brush. It was I who got the only glimpse of the cross fox that

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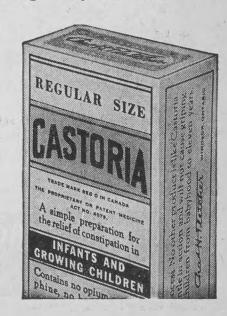
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morning. At first I took it for a bundle of red fall leaves, a hawk's nest perhaps, up in the crotch of a leaning sycamore. Then I caught the faintest flicker of a pricked ear and the dropping plume of the tail. In the same second he saw me, and slipped to the ground

He knew well when a man was armed and when he wasn't. For another moment he stood looking boldly at me, and I had the extraordinary feeling that the brain behind that glance was equal to my own. The look on the sly, pointed mask was calm and a little amused; the redgold eyes blinked. Then he turned and was gone.

FEW minutes later I heard the A two hounds strike something and carry it down along the river. Later Old Blaze's voice came in-loud, ringing, deep-toned like the big church bell down at Rockford-and I knew they'd put up the cross. And I knew there could be but one ending to that chase. Blaze's feet never faltered, and he knew no other scent once it was laid to a certain track. Always at puzzling points in the chase, it was he who could fathom the mystery, laying the scent clear again so the other dogs could forge ahead to full speed. And with Baldy and Nell to set a fast pace and Blaze to keep them moving, it looked like a bad day for the cross.

A half-hour later I met Father coming through the brush and told him about seeing the fox, Not long afterward we came up with Dewey. He sat on a log, listening to each shift and turn of the chase. He could interpret the progress of a hunt by the cadence of hound-music as a telegrapher can intercept code. Familiar with every foot of the country, he knew every trick the fox could play in all the winding miles of Cane River valley.

Dewey had his hunting horn beside him on the log—a wand of magic he had carved with love and patience from a single piece of beechwood. Tipped and banded with metal, its like was not known in all the country for far-carrying tone and sweetness. Dewey had been a whole year on it, working nights and in between, but it was worth it. The thin, far sound of it came to you as strained silver across the moonlit hills.

That day I got to study it close and even hold it in my hands. I blew a couple of notes, but you'd have thought it was an old trumpet instead of the horn that Dewey used.

Father's eye was on me when I turned, and Dewey stood laughing his

almost soundless laugh.

"Horn-talk ain't for youngsters," Father said, as he took the horn from me. "It's for old-timers, like Dewey and me. It takes a long time to learn to make one talk, Son, and a long time more to learn the dogs what it says. Someday, maybe you'll use one too."

Soon we all moved up toward Half Dome, the highest rocky point along the river. From there we would always be within sound, and sometimes within sight of the hunt.

Already the chase had covered miles. From far south on the slopes of old Mount Remus the trail song of Baldy and Nell reached us, thin and faint as the plaint of a tree peeper.

"Getting sweet," said Dewey, and Father nodded. The fox was warm and sweating now, his scent stronger.

"He's likely climbing up along Chilly Branch now."

They talked back and forth at intervals, spanning the miles of intervening woods and hills by the sounds. If you knew the country you could close your eyes and actually see fox and dogs winding up some stream bed or plunging down the rocky slopes.

A BRUPTLY the hound babble burst out clear and sharp as they crossed the spine of a ridge. No sound at all from Old Blaze. He wasted no energy in trail cries. Then the eager mouths were suddenly silenced. Baldy and Nell were at fault.

"He's jumped the narrow gorge at the head of the Branch," Dewey said. He blew three clear, high notes on his horn, heartening the dogs just as clearly as if he stood among them yelling. "Blaze'll have to climb up an' around. We'll hear him in about five minutes."

It was so. Presently one voice took up the cry, a deep, cathedral belling: Old Blaze, telling of the found trail. His tolling trail song filled my blood with a lonely, happy unrest.

Presently new dog voices entered the blustering chorus. "They gone an' picked up Jeff Keyser's coon hound an' them two potlickers of the Ballards. We don't need 'em, but they





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When Writing To Advertisers Please Mention The Guide. can't hurt much." Brittle pride was in Dewey's voice. "May help to flurry the fox a mite."

"He's roundin' back north right now," Father said. "He tried all his tricks on the mountain. Old Blaze's too much for him. He'll swing right down the valley bottom." . . .

It wasn't a half-hour before we saw the fox break out of the scrub oak, coming back, the dogs less than a 1,000 yards behind, spread out with heads high, ears and tongues flying, all but Old Blaze who was far behind. The fox was getting winded and a bit flurried. All the vantage he had tried for on the mountain had been lost, Dewey said, and now he had to think fast with no time to figure his tricks. Straight down the valley they swept as Dewey sounded three sharp horn notes to hearten the dogs. I yelled till I was hoarse and grabbed at Father and Dewey. They were yelling, too.

It was a minute or two before Old Blaze came out of the woods, running heavily and silently. He was laboring, and Father remarked to Dewey that Blaze seemed to be taking a whipping. Dewey flared up. Said Blaze was always slow, but the fox never lived he couldn't trail the heart out of. Always there was that sort of thing between Dewey and Blaze -fierce, fanatical. Everything unique and estimable about Dewey in those few high years stemmed from the dog; I came to see that later.

THE chase had turned down 1 through Wyble Woods. We ate the bacon sandwiches and wedges of corn bread we had brought with us and moved on downstream to another hilltop, and the day wore on. It was a passage out of all time. It was the ancient song of the fall wind rattling the palmettos and swinging the Spanish moss. It was the bitter-sweet melancholy of October and the frost fires in the hardwoods. There was manhood and heroism and the strange haunting horntalk carrying true and far across the hills- subtle as hearthunger and hope.

Then it was dark again and we built a pine-knot fire in the deep woods. Dewey sent probing, questioning horn notes into the night. Something had gone wrong with the schedule of the hunt. All should have been over by now, according to expectation. Instead, a half dozen times in the past hours, the dogs had been at fault; but each time the deep bass of Old Blaze finally told of the riddle solved. The hound-music that at sunset had sounded three miles north now came from far to the west, so far that it was only a faint, elating echo.

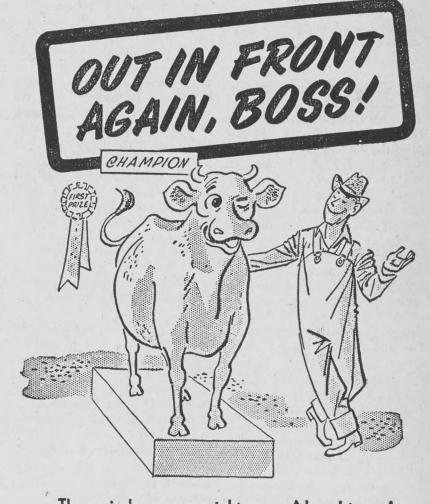
"Happen we may have lost him this time," Father said once. "Knows what he's up against. Like to 'a' run clean out of the country."

But Dewey gave a snort of denial. "The cross'd no more quit his range than my dog Blaze would quit a trail. He'll round back again in a big circle an' Blaze'll be a hangin' right onto his tail."

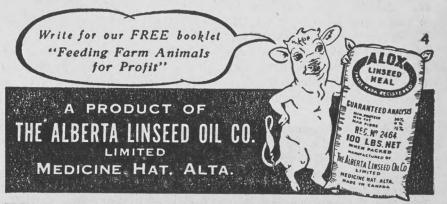
Father was perturbed. I could feel it. He was thinking of Blaze, I knew, figuring the endless miles of the chase and the 15 hours of running since dawn; and Old Blaze, with no chance to eat or rest, no chance to lick his cut feet and tortured limbs, hardly a chance to drink.

At mid-evening the eager babble of new voices told us that other dogs





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had joined the chase. Shortly afterward we heard the sudden high yelping gone-to-earth cry of the pack. I thought it marked the end and I came in to the fire with shining eyes. But Father and Dewey just sat listening for one voice in the distance.

"You can't hear Blaze's voice in that ruckus," Dewey said. "Them potlickers has run some young fox in a hole, but it ain't the cross. Blaze is still onto him. He'll fetch him, too, 'fore morning."

"Hadn't you best blow him in now, Dewey?" Father said. "It's been a mortal long day an' Blaze ain't what he used to be. We could maybe take it up again tomorrow night."

Dewey's heavy, thatched brows jutted and seemed to bristle. No remark could have been better designed to make him hunt the whole night out. Pride in Blaze's prowess made him blind to the ordeal he was forcing.

"Why, you couldn't hardly blow that dog home now if you tried," he cried. "My dogs are never bred to quit."

He blew two more long horn notes into the night, spurring Blaze on. Then a lot of short, sharp, horn-talk to round the other dogs back to the first trail. Far away, a deep bugle note from Blaze told us he'd heard and understood.

A BOUT ten o'clock Father said I'd have to go home, or Mom would raise a great row. I begged to stay, but it was no use. He went back with me to fetch some grub for him and Dewey. Mom sent me right to bed, but she might as well have held her peace. I didn't sleep anyway. The moon rode high above the cypresses and I lay watching it for hours, listening to the far sing-song of the dogs out there under the bright stars. It was a night to end all hunting nights. Dewey and Father must have gone a long way down river, for the horntalk grew fainter and fainter until it was as thin as the cry of a beetle across the intervening miles. But inexorable, never ceasing.

I must have slept at last, for the cold dawn was just beginning to break when I sat up sharply. A new, close, different cry had awakened me, a hoarse and rousing "treed" call, Old Blaze.

For a time I lay listening. Only once that call had sounded. There were no other dog voices; even Dewey's horn was silent. Finally I dressed and hurried forth into the frosty chill, with wild excitement.

I'd started toward the river when I saw Dewey emerge from the woods and come silently toward the house. Father just behind him. Dewey was carrying something wrapped in his old coat. Something about him held me in my tracks, kept me from calling out. He was all wet and muddy from the bottoms and his face was cut by briers. I saw that he was crying. He didn't even see me as he passed, sort of lurching and weaving, looking huge and blurred, with the tears streaming down his weathered, hairy face. Then I saw what he was carrying: Old Blaze.

Father didn't speak, simply put a hand on my shoulder a moment, and we both followed on up to the porch. I didn't know what had happened until hours later when he took me to where the cross fox lay dead by a forest pool with his black lips

curled and his eyes open, and showed me where Blaze had died, scarcely ten yards away.

All night long, that old Talleyrand of the woods had worked his every wile upon the dogs. But Blaze had been too much for him. And death had caught up with both of them—the superbly dogged hunter and the doggedly superb hunted. The spirit of each had been far greater than his waning strength. The heart of each had burst at the end of the grim trail; they had literally died running—a thing no hunter would see again in a hundred years.

Dewey laid his burden down on the cot and stood gazing at it, wild and bloody and mad like a man bemazed. Tears were still running down his tough, seamed face, and now and then he groaned with a short, retching sound. I had never seen a man cry before and I looked away most of the time. Even Mom stood unnoticed in the doorway, wordless in the face of that great grief exposed in the searching light of morning.

Father went over and laid a hand on Dewey's arm. "We'd best go in and eat a bite," he said. But Dewey shook him off like a prodded bear. He took out his hunting horn and stood looking

"I blew him to his death with the damned thing," he cried in hoarse, desperate fury. "Oh, yes, I had to keep on blowin'!" He cursed himself then in a cold, concentrated rage horrible to hear, and broke the horn in his great hands and flung the two pieces over the porch rail. "Damn, I'll never run another fox, Cam! Never another, so help me!"

He gathered up the old coat and its precious burden and went stumbling down the steps, heading for home.

Father followed, and I could hear him talking and pleading, trying to help; but Dewey, blind and deaf, growled and shook him off. I just stood on the porch steps till they were long out of sight. Hours later I gathered up the pieces of the broken horn, until the day I could find a craftsman fine enough to mend such a thing of perfection.

DEWEY is gone now. He died that same year. Something had gone out of him, they told me, after Blaze went, and he became in truth the backwoods derelict that people said he was. His old bark-covered cabin at the bend of the river has long since fallen down. Father, too, has been hunting other fields for years.

Once each year I leave the city to go back to the old place for a bit of rest and shooting. But the woods are different, changed, as I was changed, even the first time I returned. I had thought it was all me at first, but soon I knew. They would never again be as I remembered them that October day. And I knew, too, why neither Father nor Dewey ever tried to run dogs in them again.

In the fall, I shall go again to Cane River. Shoot a few birds perhaps and fish a bit. The woods will be lonely in spite of their bright frost fires and on moonlit nights they'll be horn-haunted. But the old hawk-lift will be in it, too, and there will be times when I am not alone. The stream and the fall wind will sing their ancient songs, and sometimes the sunlight will seem rarer, and breeze softer, as with some ineffable nearness.



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This is a useful little book. Those interested can buy a copy for 50 cents from Kerry Wood, Box 122, Red Deer, Alberta.

The Magpie Menace
Kerry Wood tells the facts about

magpies and how to destroy them

WERY farmer knows that the magpie is a pest, while sportsmen very much resent the magpie's greedy interest in gamebird eggs. The magpie is much more clever at nest-finding than its black cousin, the crow, and we should not underestimate the amount of indirect damage that they cause us by their egg and fledgling raids on the nests of valuable insectivorous song birds and game birds."

These comments are made by Kerry Wood in a very useful booklet that he has recently published in which he discusses the good and bad qualities in the black and white pest that goes under the name of "magpie." He points out the depredations that the bird makes on the nests of useful birds and discusses the harm that they can do.

P. A. Taverner in his "Birds of Western Canada" has equally hard words for the magpie. "Next to the crow and possibly before it the magpie is the most persistent nest robber in the bird world," he says. "No eggs or young birds are safe from it and where it is numerous it is one of the important determining factors in limiting the increase of the smaller birds. It even enters poultry yards and hencoops, timing its visits nicely when the owner's eyes are turned elsewhere."

Wood outlines a number of methods of control. The method that will appeal most to the boys on the farm consists of putting a dead animal or the offal left after butchering within easy shooting range of a window in the barn. During the day, while chores are being done, it will often be possible to shoot many magpies. Wood tells of one young farmer who shot 43 magpies in four weeks in just this manner.

METHOD that is less fun for the A farm boy but more effective, so likely to be more popular with the farmer, consists of the use of chicken wire traps. Several such traps are described in detail. All that is required are some pieces of wood and some chicken wire and a certain amount of ability with a hammer and saw. Using one of the wire traps described, Dr. William Rowan, head of the Zoology Department, University of Alberta, captured 75 magpies in one day, near Tofield, Alberta. A score of 30 or 35 magpies per day per trap for the first day or so at a good location is not an uncommon catch. This number of magpies can do a great deal of harm in a year.

These wire traps should have a particular appeal to fur trappers. Two or three such wire cages set out in the area being trapped will mean that a great many good sets remain undisturbed, that otherwise would be

ruined by magpies.

of poison baits, and indicates how effective they are for destroying magpies. Indiscriminate poisoning is always dangerous, however, and special permits are required before poison can be used.

The booklet also discusses the use

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Problems Of Wheat Selling

Difficulties facing Canada in making future sales of export are daily becoming more apparent. Because of a surplus from last year's big wheat crop in the United States, and another crop in prospect, which could easily be the largest on record, the United States has shut down on the use of E.R.P. funds for purchase of Canadian wheat by countries receiving assistance under the Marshall Plan. True, the government there has not taken the formal step of declaring wheat to be a surplus commodity. That step, when taken, will make illegal the spending of such funds for Canadian wheat. In actual practice, however, all countries of continental Europe have been told that it is only wheat from the United States which can be bought with E.R.P. funds.

Great Britain still insists that it will be able to complete its purchase of 140,000,000 bushels from Canada during the current crop year, and a similar quantity during the crop year which commences August 1, 1949. To do so the United Kingdom expects to use for wheat Canadian and American dollars under its control and to use for other commodities the money being obtained from the United States. Such procedure will apparently be acceptable to the government of the United

So far principal evidence of the current problem is found in the fact that Canadian mills are finding it very hard to make any export sales of flour and a considerable part of Canada's milling capacity is idle. The carryover of old crop wheat at July 31 will not be very large, and its size would give no cause for concern if prospects for sales next year were good. If, however, the west should harvest a large crop in 1949 (which at the moment does not seem to be likely) there could well be an embarrassing surplus of wheat by July 31, 1950.

It can be taken for granted that western farmers will put in the maximum possible wheat acreage this year, and also that they will deliver every possible bushel of wheat before the end of another crop year. The basic price of \$1.75 per bushel is guaranteed for all wheat so delivered, and that price is higher than can be hoped for in later years. Just as the 1949 wheat crop promises to give a larger return per bushel than wheat of subsequent years, so also the prospect is that on the great majority of farms wheat this year will give a larger return per acre than any other crop.

Under such conditions it is only natural that The Canadian Wheat Board is endeavoring to dispose of every possible bushel before another crop is harvested. The price situation provides another reason for such a policy, because under the International Wheat Agreement \$1.80 per bushel is the maximum price which can be hoped for after August 1. Consequently any wheat carried forward by the board into next year will have to be sold at prices lower than those now available. An exception, of course, has to be made in respect to wheat for Great Britain, for which the contract price of \$2.00 per bushel is to apply, next year the same as this

At the beginning of this crop year the board's price for Class II wheat for export to countries other than Great Britain was approximately \$2.40 per bushel. It has been gradually reduced and recently stood at \$2.15 per bushel. This Class II price has always fluctuated in accordance with fluctuations for American wheat on the Chicago market, taking into regard both prices for future delivery and current premiums for prompt delivery. At one time it was understood that the Wheat Board was able to demand a considerable premium on account of the quality of Canadian wheat. Such premiums are more easily obtainable when customers buy Canadian wheat for mixing with other wheats, under conditions where millers are able to exercise a free choice as to the composition of their mix. Under conditions of bulk buying, which largely prevail at the present time, there is much less deliberate mixing by millers of different wheats and consequently the premium for quality is more difficult to obtain. It is believed that lately the Class II price has been established on a basis to make it fully competitive with wheat from the United States. As the current crop season draws to a close, it is not unlikely that customers abroad will be offered Canadian wheat at decreasing prices in order to take full advantage of all demand that exists before new crop wheat

U.S. Plans for Support of Farm Income

becomes available.

A new and entirely different plan for support of farm income in the United States recently put before Congress by Charles F. Brannan, Secretary of Agriculture, is of interest, and may be of great importance to farmers of western Canada. The new program, if and when adopted by Congress, could have far-reaching effects on the nature of United States farm production and also on the international price levels for grain.

Discarding previous notions of supporting farm prices on a percentage of "parity" as formerly calculated, Mr. Brannan proposes to relate agricultural policy to the objective of maintaining a total purchasing power of the country's farms in relation to the total which prevailed during the base period of 1939-48. At the same time he proposes extensive measures of production control for various commodities and would limit assistance in two ways. It would apply only on specified allotment for a definite quantity of each commodity for a particular farm. In addition, there would be an over-all limit intended to prevent very large farms from receiving benefit on production over a certain level.

The most startling proposal is to substitute "production benefits" for market price support over a wide range of products. The intention would be to let market prices take their course, where, as intended in some cases, production is stimulated. The farmer would receive a direct payment from the government treasury to represent the difference between the actual market price and the calculated desirable price. Consumers





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might thus be able to buy some products at a low level, while the farmers' income would be fully maintained, with the government bearing the cost of the difference between the market price and the farmers' income.

Should such a plan be applied to wheat and coarse grains it might well have the effect of driving down market prices in the United States, and consequently the international level of prices, with a corresponding effect on receipts for Canadian farmers. It appears, however, that the new method is intended to apply only in part to grain crops and that the intention is, so far as they are concerned, to continue price support by means

It is by no means certain yet that the plan will be accepted by Congress. It is criticized on the one hand because of possible tremendous costs impossible to calculate in advance. On the other hand, it is criticized because of the attempted regimentation of all farmers which may be involved. Then again, there is resentment among the larger farmers who feel that an attempt is being made to discriminate against them.

One of the very interesting points of Mr. Brannan's program from the Canadian standpoint is that he wants to emphasize production of meat animals and dairy products, with a corresponding reduction in wheat. To some extent that might be applauded from this side of the international border and at first sight it might appear that an increased demand could result for both Canadian feeder cattle and Canadian feed grains, However, the plan, if successful, might have a tendency both to drive down market prices for cattle and also to balance United States agricultural production so as to limit need for

The level of prices on which farm income should be based, according to Mr. Brannan, appears high to Canadian eyes. For example, a farm price basis for wheat is suggested of \$1.88 per bushel, very much higher than the level provided for in the International Wheat Agreement.

As discussion of Mr. Brannan's proposals proceeds, and as details are modified or clarified, they should have close study in Canada, both for possible effects on the agricultural economy of this country and also because of possible effect on Canadian agricultural policies.

Warning to Deliver Flaxseed Early

Following is wording of a circular issued by The Canadian Wheat Board:

"The board desires to remind producers and handling companies that the present floor price for flaxseed of \$4.00 per bushel basis No. 1 C.W. Flaxseed in store Fort William or Port Arthur will expire on July 31, 1949.

"With this expiry date in mind, producers should arrange to deliver the balance of the flaxseed which they plan on marketing during the present crop year at the earliest possible date, in order that such flaxseed may be delivered at Fort William or Port Arthur prior to July 31, 1949."

Anyone who holds flaxseed too late to be disposed of under the present guaranteed price runs risk of considerable loss. The government is not guaranteeing any support price at all for the next crop year. The Canadian carry-over will be very large and only the fact that the bulk of existing stocks are in the hands of the government, which is prepared to hold them until it can find a market, has prevented a severe decline in prices.

In handling the flax crops of 1943 and 1946, the government of Canada did a little better than break even, showing a profit of a few thousand dollars. In respect, however, to the 1944 crop there was a loss of slightly over \$1,000,000 and on the crop of 1945 a loss of more than \$2,500,000. On the 1947 crop the government's loss was \$4,356,000. What loss may be experienced on the crop of 1948 could, for the present, only be guessed at. However, the total loss on flax operations may conceivably reach an amount of \$20,000,000.

Whatever the final figures may be they should not be regarded as representing a bonus to western farmers. The guaranteed flax prices were introduced, not in order to maintain farm income, but rather to persuade farmers to grow a large acreage of flax so that needed supplies of linseed oil might be obtained. Last year's weather conditions happened to favor both a large acreage and a large production of flaxseed, both larger than had been expected. This, in turn, resulted in the government acquiring more flaxseed than it needed, to the extent of an embarrassing surplus.

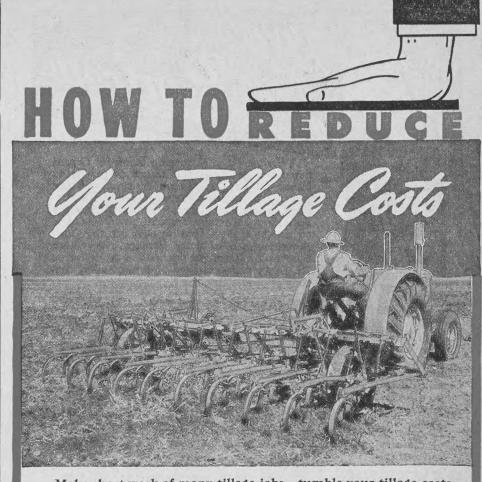
Food Allocations Discontinued

For several years past there has been in existence an international emergency food committee which undertook the task of allocating scarce foods to those countries most in need of them. Canada was one of the important members of that committee, in the work of which Mr. George McIvor, Chief Commissioner of the Canadian Wheat Board, took a prominent part. The committee has now been dissolved and all allocations have been discontinued, an indication that the world food situation is much easier than was formerly the case. As long as it was in existence it was necessary for all countries buying Canadian wheat to report their purchases to the committee, and it was similarly necessary for Canada to restrict sales of wheat and other grains within allocations made by the com-

From now on Canada will be free to sell wherever customers can be found and all countries will be able to buy Canadian wheat if they so desire. It will be necessary only for each country to bear in mind its commitments under the International Wheat Agreement.

The International Emergency Food Committee, during its lifetime, did extremely important and useful work.

Representatives of different countries on the committee worked harmoniously, and the importing countries in need of supplies showed a cooperative spirit when the interests of some of them had to be sacrificed in order to let food stocks go to destinations where the greatest need was



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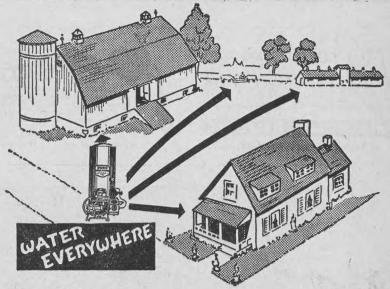
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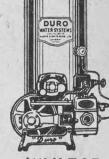


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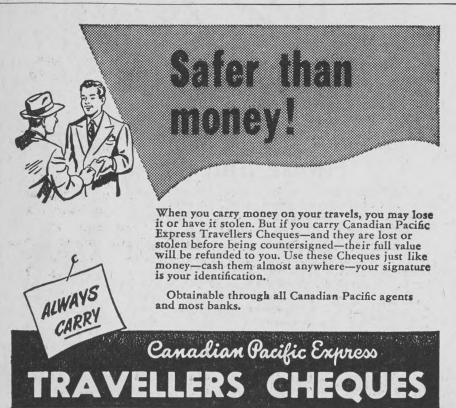
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Wheat Agreement

Continued from page 17

The stated objectives of the agreement are "to assure supplies of wheat to importing countries and markets for wheat to exporting countries at equitable and stable prices." Surely this is a purpose which everyone can endorse and which, if achieved, will contribute much to international understanding and goodwill as well as to the prosperity of both producers and consumers. In order to form an opinion as to the soundness of the agreement, and how well it is fitted to accomplish its purpose, let us take an impartial look at its provisions.

THERE seems to be no reason to believe that any serious difficulty will arise in connection with administration if reasonably competent officials are secured. In fact, it appears very unlikely that the agreement will be subjected to strain, and might even be of little effect, so long as open market prices range between the floor and the ceiling.

The real time of testing will come, and the worth of the agreement be proved, only when prices are decidedly above or below the agreement range. By the very nature of things price must always be a vital factor in commercial contracts of this kind; and those who assume the responsibility for negotiating such contracts must venture into the realm of prophecy, knowing full well that if they do not guess correctly they will be prophets without honor in their own country. But there are other factors to be considered, which, in the end, may be of greater importance to both producers and consumers than the immediate advantage to be gained by either excessively high or excessively low prices.

It is of vital importance to the importing nations that their people be assured of constant and ample supplies of food at a cost which will enable them to play their part in the production and commerce of the world. It is also important to them that those who supply that food have the means to become good customers as well as good producers.

It is perhaps even more important to the exporters to be assured of a constant market at a price which will enable their producers to remain solvent. In Canada the wholesale bankruptcy of the thirties was brought about primarily by the loss of those European markets upon which our wheat industry had been built. That loss was brought about mainly by the madness of the isolationism which swept the world and finally resulted in the second world war.

A great effort is being made today to avoid a repetition of that mistake, and to bring about international co-operation to maintain peace. But if that effort is to be successful the nations must keep ever in mind the basic fact that political co-operation and economic isolation cannot exist side by side. This is one of the first great practical efforts to co-operate in keeping open the world-wide channels of trade in a basic commodity. If it fails what hope is there for success in the much more difficult field of international political co-operation?

When prompted to examine a proposal of this kind by a desire for

its success it is but proper that one should be more concerned about its weak points than its strength. If I may venture to express a purely personal opinion, I would suggest that if the agreement breaks down in the course of its operation the cause will be found in the fact that the floor and the ceiling are too close together. I believe that if contracts of this nature are to survive, and become recognized as a permanent part of orderly international relationship, they must be approached, not primarily with the idea of driving an immediately advantageous bargain, but to provide a safeguard against disaster. Such stability as may be gained will be the result, not of rigid price fixing, but from the assurance of dependable markets.

I believe it to be a sound principle that the floor prices, while high enough to maintain the solvency of the efficient producer, should be low enough to discourage increased production in times of surplus. Also that ceiling prices should be high enough to encourage greater production in times of scarcity without becoming an intolerable burden on the consumer. Agreements of this nature are, in effect, emergency measures because they do not influence trading except at the floor or the ceiling, and the fixing of a low floor or a high ceiling does not cause the price to go down or up but merely checks it before it goes to disastrous extremes.

Such a principle is not readily acceptable either by those producers who look to price fixing at a high level as a means of maintaining prosperity, or to those consumers who look to price fixing at a low level to accomplish the same purpose. The wheat producers of the United States are particularly unwilling to recognize such a principle because they look to the parity program of that country to maintain a profitable price for them. While it may be possible for 140 million taxpayers to maintain an artificial price for a product the great bulk of which is used for domestic consumption, it is obviously quite a different matter for 12 million Canadians to attempt to maintain an artificial price for a basic export commodity, only a very small part of which is used at home. The hope for the future of Canadian agriculture lies, not in government paternalism and the charity of the taxpayer, but in freedom of trade and expanding markets.

NOWHERE in the agreement is there any hint of an attempt to enforce adherence to its terms. It is looked upon as a voluntary contract for the benefit of all concerned, and its fulfilment is dependent on the integrity of the nations in honoring their pledged word. Perhaps the agreement in its present form will be found to be a very crude instrument, and its operation may reveal many points of strain and stress, but the idea upon which it is founded is the brightest hope in the world of today for the future of mankind. It is a noble effort of nations to co-operate in the commercial field to bring understanding, prosperity, and lasting peace to this

Paul Farnalls is a farmer of Halkirk, Alberta, who was appointed by the minister of trade and commerce to attend the three world wheat conferences as an advisor to the Canadian negotiators.





Dollar harvest...

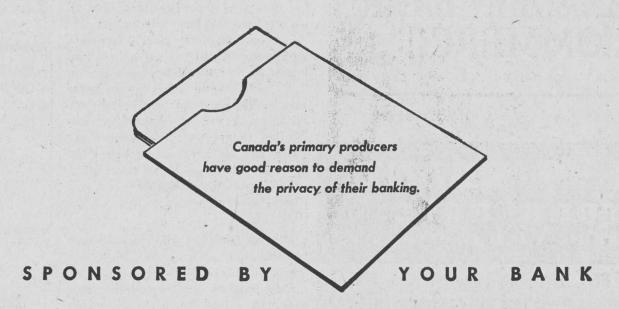
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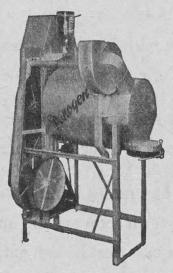
Seed Treatment

New Swedish oil base treatment gets Manitoba try-out

NEW seed treating process is being used in the Red River Valley this year-the result of promising data obtained from official government tests and several commercial trials last season. Statements from the Swedish Institute for Plant Protection, the Norwegian Agricultural College, North Dakota Agricultural College and the Dominion Laboratory of Plant Pathology in Winnipeg all favor this method of seed treatment.

The treatment is referred to as the Panogen process, which is reported to have been developed in Sweden about ten years ago. The chemical is an organic mercurous liquid, carried by an oil "vehicle." The properties of the oil base are such that a small amount of the material is spread evenly over a large amount of grain. The solution carries a very potent dye which distinguishes the treated material and may be observed to cover all seeds completely, using dosages as low as three-quarters of an ounce per bushel.

An advantage of this type of treatment is the comfort given to the opera-



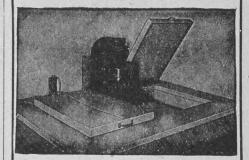
The automatic seed-treating machine -capacity 75 bushels per hour.

tor. There are no flying dust particles. The liquid does give off some poisonous fumes during the mixing process. These are carried away through an exhaust fan and pipe to the outdoors. The fan is an integral part of the machines sold by the company.

Treatment with this new chemical is shown to control stinking smut in wheat; smut and seed-borne blight in oats; covered smut, black loose smut and stripe in barley; stem and covered smut in rye; seed-borne root rots in all cereals; and blackleg in sugar beets. Dosages are very small: 11/2 fluid ounces per bushel of wheat, oats, barley or rye; 41/2 fluid ounces per bushel of flax and nine ounces per 100 pounds of beet seed. The small quantities give the required coverage because of the characteristics of the carrying oil.

Petrus Hellman, who recently came to this continent from Sweden, points out that the liquid can be applied by using ordinary hand-operated mixers, concrete mixers or the specially-constructed machines designed for largescale treatment. The continuousprocess machines are available in two sizes with capacities of 75 and 300 bushels per hour respectively.-R.G.M.

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Divinity Student Relieves

Does a hacking bronchial cough, either

Does a hacking bronchial cough, either dry or phlegmy, make your life miserable? Have you hoped for blessed relief from the choking, wheezing, smothering fight for breath caused by Chronic Bronchitis? Read what Mr. J. E. Broadhurst, Pennant, Sask., divinity student writes:

"For 3 years I suffered from Chronic Bronchitis, frequent colds, running nose and headaches. My cough was so bad I could neither sleep nor study, which I am eager to do as I hope to become a Minister. Then I heard of Templeton's RAZ-MAH. After using RAZ-MAH for one MAH. After using RAZ-MAH for one day, I had the best night's sleep in months. Had it not been for RAZ-MAH Capsules, I would have had to give up my studies."

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The Countrywoman

Far Windows

Memory exaggerates; and so The bygone years that seem To have been happier than these Were not, perhaps, so happy As the dreams we dream.

As far windows that seem to have Captured the late sun's gold, Are telling fabrications, only To compensate a blind spot in your eye For richness that near windows hold.

-JEAN SUTHERLAND.

A Noted Visitor

ITHIN the next month, three annual conventions of rural women's organizations will be held in the three prairie provinces. Alberta Women's Institutes will gather for their annual meeting in Edmonton during the last week of May. The Manitoba Women's Institutes hold their convention in Winnipeg, June 14 to 17. The following week, beginning June 20, the Homemakers of Saskatchewan will hold their convention in Saskatoon. During the same week, the Federated Women's Institutes of Canada will meet in biennial conference in Saskatoon. To this latter national meeting will come leading representatives from every province in the Dominion. Presiding will be Mrs. Allison MacMillan of Prince Edward Island, who is a farm woman and president of the F.W.I.C.

The Women's Institutes this year have been most fortunate in securing as special speaker guest, Mrs. Raymond Sayer, president of the Associated Country Women of the World. This is not Mrs. Sayer's first visit to Canada but it will be the first time that any large number of western Canadian women have had the opportunity to meet her and to hear her speak. She will be present and address a dinner meeting of the Manitoba W.I. on Women's Responsibility for World Citizenship. Mrs. Sayer will then proceed to Saskatoon, where she will address meetings there.

Mrs. Sayer and her husband make their home on a farm, near Indianola, Iowa. They have four children. She was elected president of the A.C.W.W. at the Amsterdam meeting in September 1947. She has attended other meetings of that organization: In Washington, 1936; in London, 1939; in Canada, 1941. In addition she has attended the meeting of Non-Governmental Organizations at Geneva and has served as a member of the National Commission on UNESCO representing the American Federation of Farm Bureau.

Besides membership in the A.C.W.W., Mrs. Sayer belongs to the American Association of University Women. She is a national and state director for the Crippled Children's Society and a member of the following associations: National Planning, Adult Education, Parent-Teacher, Rural Education N.E.A., Christian Fellowship and Western Policy Committee. Just to list all the various organizations on which she has served, in one capacity or another, would take much space here. They are organizations chiefly concerned with the farm bureau, rural life, education and welfare. A study of the list makes one realize how much of her time and talents Mrs. Sayer has given to the welfare of her community, local, state and national. It does show the kind of training and experience which has fitted her so well to hold high office of international calibre. We will look forward with pleasurable anticipation to her visit to western Canada next month.

The Associated Country Women of the World now claim a membership of over five million. It is interesting to note that a joint letter from the Danish Constituent Societies has given a cordial invitation to A.C.W.W. to hold its next Triennial Conference in Copenhagen. This has been unanimously accepted by the executive committee. It is hoped to hold the Conference in late September 1950.

Two visitors and a meeting which has brought home to Canadians the need of learning to live neighborly in the world of today

by AMY J. ROE

Inter-Racial Goodwill

MUCH is said these days of the harm done to the minds and lives of men, women and children today, because of fear, distrust and race prejudice. We realize that to permit these things to exist and grow creates tensions which could result in another world war. But we think and speak of these things as existing chiefly in Europe, Asia, or Africa, not at home here in Canada. How does it go as between the various national groups and races in any given community?

On Good Friday last and on the Saturday following, in Winnipeg an Institute on Inter-Racial Goodwill was held under the auspices of the Winnipeg Council of Women, as a project which may be taken up by the National Council of Women across Canada. The subject was explored through three



Mrs. Raymond Sayer, president of A.C.W.W.

discussion panels composed of from four to seven discussants each; by special speakers; and by free and open discussion by those who attended.

The sessions were made realistic by the presence and participation of a negro, a Japanese, a Chinaman, a Jew, a German, an Indian and a few people from European countries. It is not attempted here to give the viewpoint of each or to attribute direct statements to individuals. But out of the discussion the following thoughts were contributed.

The root of goodwill is understanding. We need now, more than ever, to understand the background and experience of people who are coming as immigrants to Canada. Before the war, Canada got mainly the surplus population of European countries. Generally they came to better themselves economically. Today immigration is restricted. Those who come now come because they have friends or close relatives in the country or because they can be fitted into some industrial need. They come often from countries which during the period between 1918 and 1930 established measures of social security such as health insurance, employ-

ment insurance, pensions, etc. Many gave up everything they had in the way of worldly goods for personal freedom. Some of them have been spared their lives as by a miracle. Coming here does not mean that they better themselves economically. In fact many have descended the economic ladder by coming to Canada. It means for them an upheaval in their lives and an adjustment which may be difficult.

The assimilation of "the white" people though slow is much easier than the negro and the oriental and even of the Jew. There is the mythical superiority of the white which tends to impress a "social image" of the Jew, the yellow and the black-skinned man or woman. Thus as one negro put it: "The sense of sight robs us of the sense of brother-hood." The social forces which pound upon us, cause tensions. What action should be taken to combat this?

Recommendations made were: That the provincial government should be approached to set up a Fair Employment Commission. That we should have a Canadian Bill of Rights for the individual citizen. While legislation will help, there is need of much effort and study of the question by people of different nationalities and races learning to live and work together in goodwill,

"All the world is a neighborhood, but we have not yet learned to live neighborly," was a statement attributed to the late President Franklin D. Roosevelt. It was found among his papers, written in preparation for a speech he was to have given at the San Francisco meeting of United Nations in 1945. His death intervened and the speech was never given.

In World Councils

DURING recent months too, Canadians have had the opportunity to hear another outstanding American woman, who has taken an important place in international councils. Mrs. Eleanor Roosevelt made a speaking tour across this country during late February and early March. Many attended the meetings in the cities in which she spoke. A still larger number listened to portions of her speeches, which were broadcast over radio.

Mrs. Roosevelt has served on the Human Rights Commission of United Nations. She spoke of being appointed to that body, along with a number of other women. It was regarded as being probably a "safe position to which to appoint women" so that they would not get on some of the important posts in United Nations deliberations. Then came a day, when through Russia's obstructive tactics, the subject of Human Rights was projected for debate into the meeting of the main assembly. The famous Russian lawyer, Andrei Vyshinsky, was to speak and to question the nations regarding their stand. Mrs. Roosevelt was told that she must be prepared to carry on the debate from the American viewpoint on the floor of the Assembly, which she did. It was interesting to note that when she did so, she was flanked with advisors and specialists from the Department of State, as would be any other important spokesman for the United States.

Mrs. Roosevelt was honored during the month of April by the National Press Club as one of the six leading women of the year. The award was made to her for her work as chairman of the United Nations Human Rights Commission. There were five other awards, which went to: Mary Robertson Moses, 88, of Eagle Bridge, New York, "because she is widely recognized as one of the most popular and original painters of 1948;" to Madeleine Carroll, stage and screen actress for "theatre;" to Mrs. Dorothy McCullough, Mayor of Portland, for "government;" to Mary Jane Ward, author of The Snake Pit, for "mental health;" and to Mrs. Marjorie C. Husted, Minneapolis, an advertising consultant in "business."

House Cleaning Ideas

Signs For The Season

WHEN housecleaning time comes around every housewife should make two signs and hang them in prominent places. One should read, "Take It Easy," and the other, "Life As Usual." Following them may not make her tasks any lighter but it will keep her and her family from feeling

Every housewife gets feeling harassed and driven when she sees the time flying by and only half her allotted work for the day being accomplished. Driving yourself harder than ever is not the answer. Take it easy. Never plan on doing more than you can handle easily before supper time. Rather do less so you have time for any emergencies that come up, or even a rest before the family arrives home for the evening. You have such a wonderful feeling of accomplishment when you do it this way.

Plan ahead so that once you start on the big housecleaning job, little things do not crop up to upset your schedule. It is well to have all closets and dresser drawers cleaned well in advance. They are jobs that seem small when you start, but which really take a long time. Any new accessories can be made ahead and be ready to move in with no fuss as soon as the room is ready for them.

Another way to take it easy, is to do a lot of the extra washing with the regular family wash. Bedspreads, dresser scarves, cushion tops, and even some curtains can be handled on the regular wash day. In the country, where water has to be carried, this is a real saving. They can be ironed immediately, or dried and sprinkled

Above all, keep the house looking fit to live in as much as possible. It does nothing for your feeling of wellbeing, or your family's, to keep the whole house looking as if a tornado had hit it. Clean one room at a time and get it back together again as soon as possible. When the walls and woodwork are cleaned get your pictures and curtains up. It would be better to leave the floor until the next day as have the vacant, empty windows staring at you. The family will hardly notice that the floor isn't done anyway.

I think you will find if you do just a little each day, greet your family with a smile and a reasonably neat house each evening, you'll find that housecleaning won't be such a nervewracking experience. It is that desperate, "I'll never get done" feeling at the end of the day that is the bugbear of housecleaning.-Grace Seale.

Those Extra Jobs

Last year I decided on a new system with the spring housecleaning, with results beyond my greatest expectations.

With notebook in hand I did a little careful planning, estimating the time various jobs would take, trying to work these in the daily schedule, when other tasks were lightest. This plan, like most plans, and my list, had to be changed several times. Its greatest advantage was on those days

Women readers tell of their favorite methods of attack and tools which aid them in the annual job of housecleaning

when everything went wrong and I could not work in the particular job. By consulting my list, I could pick out something that required less time and still check one item off my list for the

I started with the Christmas decorations, gathering up everything in the line of ribbon, paper and boxes that could be used again. I ironed the paper and ribbon, folded them and placed in boxes. All frail decorations wrapped and placed in separate boxes. I carefully tied each one, placing all in a large wooden box, nailed it up and marked "Christmas decorations only." This year we found everything without a minute's searching. The children used many of the boxes and ribbon to wrap gifts.

Next came the basement. Here we really made a clean-up. Articles not used for years, broken chairs, picture and window frames, baskets, a few

pieces of linoleum, strips of wallpaper, half-used cans of paint. None escaped under the slogan "use or discard." When finished we had a tidy basement, two extra chairs for the house, two chairs and table for summer use in the garden. The high chair, broken rocking horse and bally swing, were at last given away to someone who could use them. There is nothing sentimental in a pile of dust-covered junk. The old picture and mirror frames turned into a family affair, the children finding pictures and Dad fitting the glass and back in place. Sister was given first choice of the pictures, as her reward for painting the frames.

The two baskets (so long an eyesore) that I never could throw away, were reinforced with strong cord and the bottom lined with table oilcloth. If you are wondering what use we made of them, well, we find nothing better to gather vegetables from the garden, especially peas and beans, in

canning time.

The pieces of oilcloth and linoleum really took quite a bit of time to measure for shelves and cupboards. After cutting one piece I discovered several other places where I could have used it to better advantage. This taught me to look and measure first. Here I found a T-square a good aid. We covered the basement shelves using up these pieces of oilcloth and linoleum, and if each shelf was somewhat different at least all are easily cleaned. With the shelves neatly covered we then turned our attention to the woodwork. Discarding the darker paint, we mixed all the lighter colors together, stirring well and thinning with turpentine. These we used on the edges and sides of shelves and inside of doors, giving all a second coat of new paint in darker tone to

We next turned our attention to drawers and cupboards upstairs. We repainted or oiled the inside doors and edge of shelves, in closets, turning out drawers in dressing tables and wardrobes. After painting we covered shelves with the pieces of wallpaper we had salvaged from the basement, first ironing the paper. This we cut to fit shelf or drawer, fastening down with thumb tacks.

After turning out drawers we sorted out everything not in use, all the odds and ends of things that will accumulate and are seldom used. These we placed in a large carton, pasting a list of contents on the outside. After lining the drawers with the wallpaper we rubbed edges and base underneath each drawer with a tallow candle, a smooth trick that won admiration from the men folks. When housecleaning time arrived I had all the little extra jobs done. It cut the time of real housecleaning down at least a third. Not being in such a rush we made a clean-up of many articles that would otherwise have been put back to accumulate dust for another year. Someone else got the benefit of the discarded clothing, etc. And best of all, the spring cleaning nightmare was over in record time. - Gertie McMinn.

Window Changes

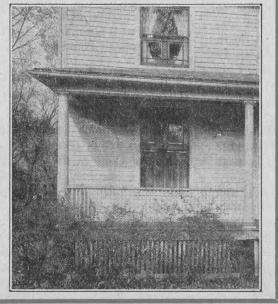


F your house is beginning I to show its age, you may add some touches to give it a modern look. If there is a verandah across the front of it, you possibly have found that it is not of much use to you, except for a few weeks in the summer. It is a task too to keep it looking clean and tidy. It is apt to get cluttered up with articles, not intended for its proper furnishing. It shuts out light from the living room, making it much darker than it should be. Then too, verandahs have a way of sagging as a house ages, due to lack of proper support.

Why not do some face-lifting to your house by tearing off that old verandah? You can make other use of the lumber or sell it. Then widen the first floor window. You will have a much lighter and more attractive living room as a result. Use small panes or a large single piece of glass for a "picture window." You might also want to change the second floor window, which comes directly above the new wide window, to give a proper balance to the exterior appear-

ance of your house. If you add shutters to the upper window, it will greatly improve the whole front of your house. The added shutters will give the same general appearance of width to the two windows.

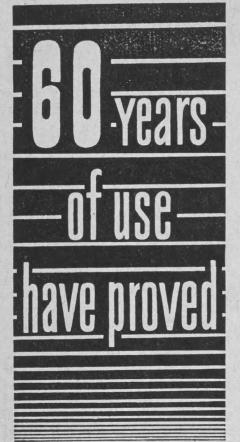
One noticeable and pleasing feature of most modern houses is the use of increased window space. This is achieved through a greater number of windows or in wider single windows. The two views of the same house "before" and "after" window treatment, illustrate the effectiveness and charm of the modern touch.



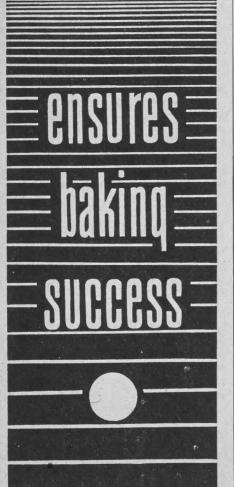
Cleaning Agents

The cleaning of walls and ceilings has always been a bugbear to me. I quailed to think of the job of washing our dark-stained front room ceiling, as it is nine feet high. On impulse I tried left-over liquid sizing on it. Not one dull, greasy spot showed through and it shone with a high lustre, looking as if newly varnished. I did not try this on the dark woodwork, as I thought it might not wash.

For the walls I purchased one of those new cellulose sponge mops and it was a boon to me. No more backache nor climbing up and down off chairs. For wallpapers I use the commercial cleaner. To clean pictures and windows I put a few drops of kerosene in very hot water and wash, then dry and polish with a soft cloth. Too much kerosene will cause white streaks. I







also use kerosene to wash out slop pails as it cuts grease readily. It can be used also to clean the bathtub, basins and kitchen sink. The odor can be removed by using hot water and soap. Bleaching liquid in enough water to fill enamel utensils rids them of all stains, except burns. It can be used again and again.

I cleaned an oil painting, which was so greasy and black that it was unrecognizable, with baking soda, rubbing it gently with a raw potato. Then I wiped it off with a damp, soft cloth, very gently. A dish of ammonia, placed in your cold oven overnight, will loosen all grime, so that it can be wiped off. Keep the drafts and the oven door closed. Lemon will clean the steel top on a range. Rub the cut lemon over it.

To clean an upholstered piece of furniture, I whip up a good suds with one of the new detergents and brush it on with a soft brush. Then wipe off with a damp cloth and repeat the process if necessary to get a good effect. If you have no vacuum, first turn the chesterfield upside down and "bang out" the loose dirt that collects inside. Before righting it, reach in and press the springs in to let the dirt out. Brush any interior parts you can reach and give the whole outside surface a good brushing with a stiff whisk or brush before doing the cleaning job!-Hazel P. Hurst.

Favorite Tools

We find at our house, when it comes to painting large surfaces such as walls or ceilings, that nothing can beat the roller-coater. This is a cylinder about the size of a rolling-pin, covered with plush. It is fitted with an attached handle, so that it can be rolled up and down a plain surface. A shallow tray comes with it, into which you pour a little paint. You roll the roller into it, then out again, so that there is only a small amount of paint adhering. Then you "roll" your wall or ceiling. This tool, in my estimation, is far ahead of a brush for painting. It covers faster, smoother and with less mess. And you will find that it uses less paint. It can be used for door facings or any flat surface, but you need a brush for the edges, corners, etc. The roller is fine too for painting or varnishing floors. In fact, we wouldn't be without it. The handle lasts indefinitely. The roller can be replaced, when worn, much more cheaply than a brush.-Mrs. M. G. M., Saskatchewan.

Have you ever tried putting the socalled "lamb's wool mop" to many uses? I mean the kind sold for spreading self-polishing floor wax. Now that the weather is a little warmer but possibly still too cold for washing of the outside windows, try putting eral thicknesses of cheese other soft material onto such a mop. Tie it on by means of a narrow rubber band at each end. Use it then to polish the windows. It is surprising what it does to them and to your spirits as it lightens the job so much. It saves a lot of climbing up and down the stepladder, as the long handle of the mop enables you to reach even the upper panes of glass with ease. This same converted mop is fine too for that weekly brushing down of walls and ceilings, be they papered or painted.—Mrs. A. Dudley, Alberta.



It's so different today



Time was no object to Cleopatra when her slave attendants served breakfast. The Cleo of today must be quick off the mark. So no wonder Mother praises the served-in-a-jiffy, eatenon-sight Post's Grape-Nuts Flakes. They're not only convenient but delicious and nourishing, too.

Yes — Post's Grape-Nuts Flakes provide useful quantities of carbohydrates, proteins, minerals and other food essentials to start the busy day right. Made with two grains — wheat and barley—to give you that glorious Grape-Nuts flavor in crisp, golden flake form. Ask your grocer for Post's Grape-Nuts Flakes.





If FATHER ran the Kitchen!



PRODUCTS OF GENERAL STEEL WARES

Figs Make Fancy Fare

Use them often as food or confection

by EFFIE BUTLER

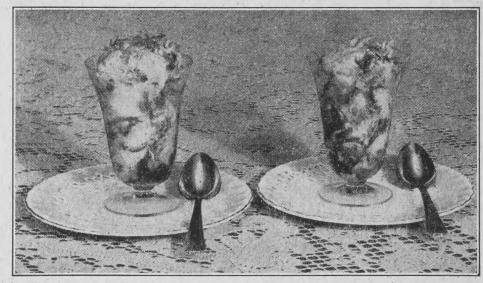


Fig whip makes an attractive dessert for a special occasion.

IGS have long been famous for their distinctive flavor and edibility. And since a large percentage of this delicious fruit is sold in the dried form, figs may be the answer to many spring dessert problems. Quick cooking, without preliminary soaking, is now the approved method of preparation for better flavor and firmer texture.

Figs in muffins, cookies, and steam puddings add fruitness and moisture. Figs filled with a smooth mixture of seasoned cream or cottage cheese or any cheese moistened with mayonnaise or fruit juice make delicious accompaniment with salad or sandwich plate. Figs are a wholesome natural confection. Figs steamed over boiling water for fifteen minutes, or until tender, then pressed down forming a round patty to hold walnut or pecan half, blanched almond, candied cherry or marshmallow make fancier confections.

Stewed Dried Figs

Rinse figs in warm water and drain. Cover generously with water and boil briskly 30 to 40 minutes, depending on softness of figs. Add 11/2 tablespoons sugar for each cup figs for the last 15 minutes of cooking. Add more water as and if needed. Stick cinnamon, whole cloves, orange or lemon slices may be added if desired.

Fig Loaf Cake

c. dried figs 1 tsp. salt 4 tsp. baking 34 c. butter powder 1 c. sugar 2 eggs 1/2 tsp. maple 2/3 c. sweet milk flavoring 23/4 c. flour

Pour boiling water over figs, cover and let stand five minutes. Drain, dry on a towel, clip stems and slice very fine. Cream butter and sugar thoroughly. Add beaten eggs and mix. Add milk alternately with flour sifted with salt and baking powder, and beat. Add flavoring and figs and stir to blend. Pour into greased and paper-lined loaf pan. Bake in a moderate oven, 350 degrees Fahr., for one hour and 20 minutes.

Fig-Oat Cookies

2 c. dried figs 1/2 tsp. salt 1 T. cinnamon 2 c. rolled oats 3/4 c. butter 1 c. brown sugar 2 eggs 2 c. sifted flour 1 tsp. soda

Rinse figs in hot water, clip stems, and put figs through food chopper using medium knife. Add rolled oats and blend thoroughly. Combine with sugar, and flour sifted with soda, salt and spice. Add fat and mix with hands until well blended.

Add beaten eggs and continue mixing. As there is no liquid it is necessary to cream the mixture well with fingers or spoon. Shape into balls about the size of a walnut and place on greased baking pan. Flatten balls with a fork. Bake about 15 minutes in a moderately hot oven, 400 degrees Fahr. Makes about six dozen small cookies.

Fig Conserve

2 c. dried figs ½ c. corn syrup 3 c. water ½ tsp. salt 1 c. pineapple or 1/2 c. coarsely orange juice chopped walnut 1½ c. granulated meats

Rinse figs in warm water, clip stems and put figs through food chopper using fine knife. Combine with water, fruit juice, and boil briskly about 10 minutes; add sugar, corn syrup, and salt, and boil slowly about 40 minutes or until of desired consistency, stirring to prevent scorching. Add nuts for the last three or four minutes cooking. Pour into sterilized glasses and seal. Seeds will come to the top while boiling, and may be skimmed off if desired. More water may be added as and if needed. Sufficient for about three pints.

Fig Whip

1 c. dried figs 1¾ c. hot water package lemon ½ c. chopped nut jelly powder meats ½ c. cream 1/4 tsp. salt (whipped)

Rinse figs; boil 30 minutes in water to cover. Drain but preserve the juice. Clip fig stems and cut into small pieces. Strain fig juice through fine sieve to remove any seeds and use as part of hot water to pour over jelly powder. Stir until dissolved. Chill. When jelly begins to set, add whipped cream, salt, figs and nuts and blend thoroughly. Chill until set. Garnish with whipped cream. Serves 6.

Fig Sour Cream Pie

1 c. dried figs 1/2 tsp. ginger 1 c. brown sugar 1 c. sour cream 1/4 tsp. salt eggs 1 T. minute 4 T. sugar tapioca meringue 1/2 tsp. cinnamon Pastry for crust

Pour boiling water over figs; cover and let stand about five minutes; drain, clip stems and put through food chopper using medium knife. Combine brown sugar, salt, tapioca, spice and blend with cream. Add beaten egg yolks, figs, and mix well. Allow to stand about 10 minutes. Pour into pastry-lined pie pan and bake about 40 minutes in a hot oven, 400 degrees Fahr. Beat egg whites until stiff, add the four tablespoons sugar and flavoring. Bake about 20 minutes in slow oven, 300 degrees Fahr., or until meringue on pie is golden brown.

Meat at Its Best

Methods that insure tender juiciness to the last morsel by M. MARY STANSFIELD

beef, pork or lamb you naturally want to secure the greatest satisfaction and enjoyment. In an animal such as you have fattened for home consumption the cuts from all parts of the carcass, either fore-quarter or hindquarter, are likely to furnish approximately the same nutritive value. Getting full enjoyment down to the last morsel depends on how you cook the meat.

In order to get tender, juicy results in every case, you must know what part of the animal the meat came from and what method of cooking will make it tender and palatable. The wrong treatment will render even the choicest cuts tough and indigestible.

For roasting, choose cuts from the ribs, loin, upper leg or the shoulder where the muscles were not used and developed to the stage of toughness by the animal. Less tender pieces from the neck, shanks, brisket and plate need long cooking with moist heat in order to soften the connective tissue produced by exercise. In the se "cheaper" portions are to be found a greater a mount of extract and flavoring.

To produce a perfect roast, cook it in dry heat, fat side up, in a shallow baking pan. Under the meat have a wire rack or trivet to keep the surface from being overcooked and to allow the heat to circulate around the entire piece. If you are doing a rib roast the rack is not necessary because the bones keep the meat off the pan.

Do not add water. Do not cover the meat. Water creates steam which deprives you of the delicious flavor developed by dry heat. If you cover the roast, steam forms on the lid and drops back on to the meat.

You don't need a lid if you do your meat the modern way because there is no spattering. Keep the temperature of the oven at 350 degrees, allow sufficient time to cook the meat to exactly the right point and you will never fail to get perfect roasts. Regulating the temperature is a simple matter in an electric range, but if you use coal or wood, see that the oven maintains an even, moderate heat.

High temperatures leave the surface hard and dry and increase the losses up to as much as one-third of the original weight. At 350 degrees the losses in moisture and fat can be cut down to one-tenth. If the meat is well fattened and is placed fat side up, there is no basting which is a saving in work as well.

HOW long to roast meat depends on several things. Size, shape and the proportion of bone influence the length of the roasting. If you want beef well done allow 30 minutes per pound at 350 degrees. For pork or lamb increase the time to 35 minutes per pound so that the interior will be thoroughly cooked. These estimates help to give a rough idea of the cooking time required.

The way to take the guesswork out of roasting is to use a meat thermometer which registers the heat at the centre of the piece. You need an oven thermometer just the same, to keep the heat even, but the meat thermometer shows when the meat is done to your particular taste. To use it, make a hole with a skewer in the centre of the piece in the thickest part of the muscle. Insert the point of the thermometer, making sure that the tip does not rest on bone. If it does the reading will not be accurate.

Calculate the roasting time as usual, just to give you a rough idea, and cook until the thermometer indicates the right internal temperature has been reached. For beef, well done, the reading on the meat thermometer will be 170 degrees. If you like it slightly pink, take it out at 160 degrees. Because pork needs to be thoroughly cooked all through, leave it until the mercury gets to 185. Lamb is likely to be at its best at 180. All these points are clearly marked on the thermometer, but you need to experiment in order to get the most delicious results.

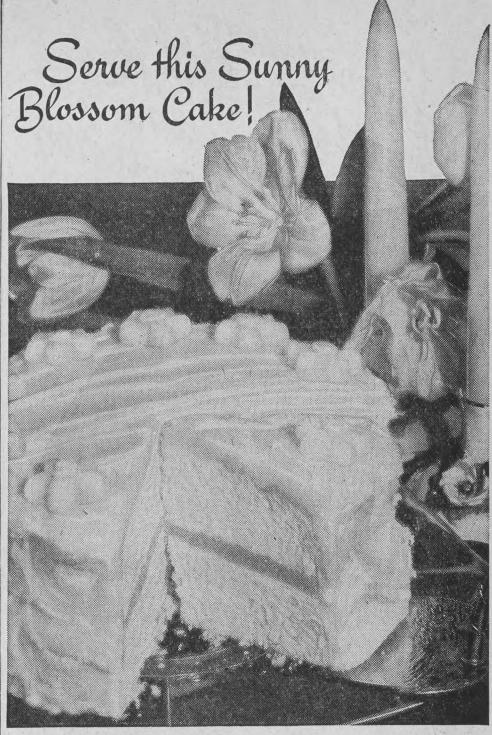
Many cuts that are not tender enough to roast but are not intended for stews, are ideal for brazing or pot-roasting. Chuck, rump, flank, and some shoulder pieces are examples. Brown the meat first, using a small amount of fat, place it in a waterless cooker, a Dutch oven, a covered roaster, or a pan with a tight lid. Add only a small amount of water, to the depth of half an inch. Put a rack under the meat, cover tightly and set the pan at the back of the range where it will simmer gently.

An hour before the meat is done, add potatoes, carrots, onion and seasonings and cook gently until the vegetables are tender. Replenish the water if necessary, but do not let the pan boil vigorously. The steam softens the connective tissue without causing the meat to fall to pieces or become ragged. The new pressure saucepans turn out wonderful pot roasts in greatly reduced time. Follow the manufacturer's directions to get the best results.

Long cooking at simmering point is the secret of juicy stews full of flavor. Cut the meat in pieces of equal size. This is important because if they are uneven the smaller pieces will fall apart before the larger ones are tender. Brown the meat on all sides in a small amount of fat. Cover with cold water, bring to the boil and from then onward, keep the liquid just below boiling point. The bubbles should just break on the surface. Rapid boiling never gives perfect results.

Add vegetables and seasonings during the last hour of cooking. Just before serving, lift out the meat and vegetables and thicken the gravy. Pressure saucepans are also useful for making luscious stews in greatly reduced time.

When using a cold storage locker it helps to identify meat quickly if you tie each kind of meat with a different colored string. Use red for pork, blue for beef and white for lamb. Make a chart where the different kinds of food are stored and place it on the lid of the box. Keep a record of the foods as they are put into or taken from the freezer.



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MAGIC BLOSSOM CAKE

2½ cups sifted cake flour

4 tsps. Magic Baking

Powder

3/4 tsp. salt 12 tbsps. shortening 11/4 cups fine granulated sugar 3/4 cup milk 1½ tsps. vanilla 4 egg whites

Sift flour, Magic Baking Powder and salt together 3 times. Cream shortening (or mixture of butter and shortening); gradually blend in 1 cup of the sugar and cream well. Measure milk and add vanilla. Very gradually blend about a third of the flavored milk into creamed mixture. Bea egg whites until stiff but not dry; gradually beat in remaining 1/4 cup sugar, beating after each addition until mixture will stand in peaks. Add flour mixture to creamed mixture about a quarter at a time, alternating with three additions of the remaining milk and combining lightly after each addition. Add meringue and fold gently until combined. Turn into two 8" round cake pans which have been greased and lined on the bottom with greased paper. Bake in moderate oven, 350°, 30 to 35 minutes. Put cold cakes together with lemon filling; when set, frost all over with yellow-tinted vanilla butter icing and decorate with candy "blossoms".





In The Sewing Room

Ideas to aid in efficiency and neatness in the task of home sewing by LOUISE PRICE BELL

AVEN'T you seen people, or haven't you yourself wasted precious minutes trying to thread a needle? If you would keep a bit of a candle in your sewing box, and each time you thread a needle draw the end of the thread against the candle wax, it will then go through the eye of the needle in a jiffy. You can also save time if you know the trick of threading a needle used for needlepoint work. Press the head of the needle with your thumb, and it will open up slightly and the heavy thread can easily be slipped into the eye. Some people actually look like they're going into acrobatics when trying to thread a sewing machine needle It is very simple to keep a tiny flashlight in the sewing machine drawer to use when threading the needle. You'd be surprised how easy the task becomes.

Sewing machines have a habit of getting dusty and dirty and full of threads. The blower attachment of your vacuum cleaner is fine for cleaning the inside of a sewing machine-a typewriter too, if you have one. One friend thinks that Biddy's tail feather is splendid for cleaning the sewing machine, particularly under and around the bobbin. It will detach an amazing amount of lint dust. And when the belt on the sewing machine loosens and begins to slip, apply a few drops of castor oil to the belt. The oil will tighten it.

The earnest housewife would be lost without her sewing box or basket, and most of them are on their toes to pick up new ideas to simplify mending day. If the sewing box is ready to collapse or if you have a modern sewing machine without drawers, the answer to your problem is a new tin fishing tackle box-the sort that has an upper compartment tray which lifts up when the lid is opened. It can be painted a gay color to match or contrast with the colors in your sewing room. These boxes usually have a handle, and they neatly hold all the necessary sewing supplies. You won't have to "fish" for anything. However, if your machine has drawers, a good way to keep them tidy is to drive small nails through a thin, narrow strip of wood and put spools of thread on the nails. Place in the sewing machine drawer, and it will look neat and the desired color of thread can be found at once. When the tiny slit at the edge of a spool of thread is broken, fasten the end of the thread to the top with a piece of Scotch or adhesive tape. This will keep the threads of the various spools from becoming entangled. Wind up your tape measure around a large, empty spool and secure with a rubber band. It won't tangle with other articles in your drawer.

Save tall, narrow olive and pickle bottles for your buttons. When you want one it is easy to locate the right kind through the glass, and these bottles take up very little space.

THERE are four small objects that A are a must for every sewing box -a small magnet to pick up pins and needles that are dropped on the floor -a small pair of pliers to use when a needle sticks in a thick piece of material and is hard to pull throughan emery board to smooth down a rough spot on the fingernail, thus saving many a run when darning fine hose-an unsharpened pencil for turning belts and other tubular things right-side out. The eraser has just enough traction to make the turning easy.

There's no excuse for having dull scissors-they are bad for the disposition. It is easy to keep them keenedged merely by cutting a piece of sandpaper once or twice. If you can't find the sandpaper on hubby's work bench, try drawing the edges over the neck of a small bottle. Simply cut at the bottle as if you were trying to cut the neck off.

WORN blankets can mean despair for many a housewife. But don't despair! There are a number of ways to either fix a blanket or put it to some good use. In applying new binding, be sure to shrink it before stitching it on the blanket. This will eliminate "puckerings" after the blanket is laundered. It is often hard to find a binding that is a good match for the blanket. If you can't find what you want, use a binding that makes a decided color contrast, or buy a good mercerized crochet cotton and crochet an edge on both ends of the blanket. When the blanket is no longer usable for your double bed, why not cut it into four equal parts and bind or hem. It will make four nice small blankets for the new baby. Instead of binding or hemming you might prefer to cut the pieces to fit a baby crib and then cover with a pretty flowered, washable material. Tuft or sew buttons here and there or quilt on the machine to hold together. And with the leftover pieces make gay, hot pot-and-pan holders. They won't feel so warm or scorch so easily as those made from cotton, and they'll last a long time. Use the odds and ends of rick-rack in your sewing box for non-twisting loops on pot holders, washcloths, hot-dish mats, etc. The loops will always be open for easy hanging and they will iron flat.

If you and your friends enjoy quilting together, here are a few tips you can share with them. Sort out the new cloth scraps to be used in piecing. Sprinkle and roll up in a piece of cloth. After an hour, iron each piece carefully. Make sure you don't get it out of shape. The starch comes back to the material by this method and the blocks are easy to cut and sew. You won't have to pin your quilt block pattern if you cut it from sandpaper.

Instead of purchasing yardage for backing quilts, buy thin sheet blankets which come in pastel shades. You will then have the exact size you need, with no seam down the centre, and the fluffy finish of the sheet blanket adds to the appearance of the quilt.

Do you envy the friend that has a quilting frame? Be smart and make one for yourself. It's easy. Simply remove the top of an old card table and use the frame for your quilting. The card table frame will be the right height for working and can be folded up and put away whenever desired.

Tips For The Feet

Springtime care of healthy feet leads to improved posture and a serene expression

by LORETTA MILLER



Simmons, British film star, demands comfort and freedom for her feet.

7 OUR posture will be perfect, your carriage graceful and you will walk as lightly as though you were treading on pink clouds . . . if your feet are in the pink of condition. After a winter of hibernating in heavy shoes and boots, toes come out into the open, or at least are less covered up, in their new spring footwear. Even one's gait seems lighter and happier when warm weather comes, providing feet are comfortable.

What is your greatest foot problem? Girls who stand or walk a lot say that general fatigue brought on by foot discomfort heads the list of their foot ills. Foot discomfort is the basis of general fatigue and may vary . . . but in the majority of instances it is encouraged by badly fitted shoes or hose or too high heels. A too short shoe plays havoc with the feet, legs, back and whole body. Practically every part of the body is thrown off balance. Tight footwear push foot bones out of place and these, in turn, press on nerves and muscles that soon telegraph their discomfort to legs and back. The result is a completely worn out feeling. It is the day after day abuse to the feet that soon has its effect on the facial expression too. This means that making and keeping the feet happy and healthy is a beauty treatment no girl can afford to neglect.

The size of your shoes and stockings is not one bit important to anyone but you! Whether you wear a petite size four or a substantial nine triple C doesn't make one iota of difference to your friends. So by all means do away with any false vanity that cramps your feet into shoes that are too small. Shoes must be long enough and wide enough to permit free movement of the toes if one's feet are to be comfortable and the facial expression serene. Stockings, too, should be of the proper size to let the toes move

Corns are areas of hard, calloused skin that have a core or heart. Any pressure on this so-called core sends a shooting pain through the toe, or even the entire foot. Remove the corn, or relieve the pressure and the pain is eliminated, or at least lessened.

No one but you, or a licensed chiropodist should perform even a minor

operation on corns or callouses. It's really safer and better to put your feet into skilled hands, if you are having serious foot troubles. However, there are some splendid products available that one may use with certain satisfaction providing directions are followed to the letter. The little corn pads that come all boxed and which are accompanied by the little purple and black discs are effective in removing the corn. After bathing the feet, a disc is placed over the offending spot and a pad placed over it. At the proper time the pad and disc are removed and specific directions followed for the safe removal of the corn. Directions that accompany each box of pads are easily followed.

ALLOUS spots on the balls of the G feet or on the joint beside the great toe may be the cause of much discomfort. Such spots of hard skin can safely be erased by the occasional use of a callous file. These files may be purchased in your local department stores or chemist's shop and full directions come with each. The application of a protective covering over the newly treated region will help prevent the recurrence of the callous. Special pads may be obtained or, if you prefer, buy a sheet or roll of moleskin, or a heavier adhesive covering, and cut it to fit over the offending spot. (Moleskin is similar to adhesive tape.) Repeat the treatment as often as necessary to keep the feet comfortable. The proper treatment, and wearing of correctly fitted shoes and stockings, should do away with callous spots in a short time.

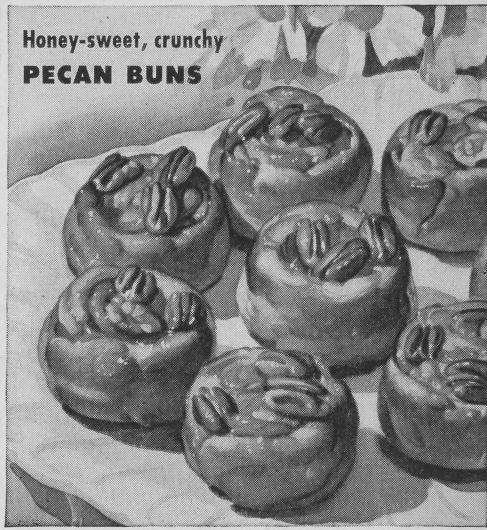
No girl would think of wearing a hat that bound the head so tightly that it caused her to frown and wince in pain. Yet the same results from too short, narrow shoes are tolerated day after day until the frown lines become permanent wrinkles. Corns, callous spots, and even ingrowing nails may be the result of improperly fitted footwear . . . so look to the care of your feet and your selection of footwear when you go searching for the cause of unhappy feet and a disgruntled facial expression.

NGROWING nails cannot be taken ■ lightly as anyone who has ever had one will tell you! The out-of-line toe nail acts as a dagger in piercing the sensitive flesh at the side of the toe. Clip off or file away the ingrowing nail, then press a small piece of cotton between nail and the sensitive flesh and the pain will vanish. Cuticle around toe nails should be gently pushed into place with an orangewood stick. Occasional applications of cuticle oil will soften the cuticle and make it easier to shape.

Toe nails filed straight across are less likely to grow into the sides of the toes than when they are too rounded. The regular use of a file in shortening and shaping the nails is a healthful practice that also smooths nail edges so that stockings aren't so easily snagged.

Daily foot baths are summer time essentials. The regular use of a well lathered, stiff-bristled brush scrubbed (Turn to page 89)

Special sparkle for a simple meal



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HONEY PECAN BUNS **New Time-Saving Recipe**

Makes 24 Buns

Measure into bowl

1/2 cup lukewarm water

1 teaspoon granulated sugar and stir until sugar is dissolved. Sprinkle with contents of

1 envelope Fleischmann's Royal East Rising Dry Yeast

Let stand 10 minutes, THEN stir well: In the meantime, scald

1/2 cup milk Remove from heat and stir in

1/4 cup granulated sugar

1/2 teaspoon salt

3 tablespoons shortening Cool to lukewarm and add to yeast

mixture. Stir in 1 egg, well beaten

Stir in

1 cup once-sifted bread flour and beat until smooth; work in

2¹/₂ cups once-sifted bread flour Turn out on lightly-floured board and knead dough lightly until smooth and elastic.

Place in greased bowl, brush top with melted butter or shortening.

Cover and set dough in warm place, free from draught and let rise until doubled in bulk. While dough is rising, grease 24 large muffin pans. Combine

1/3 cup brown sugar (lightly pressed down)

2/3 cup liquid honey

3 tablespoons butter or

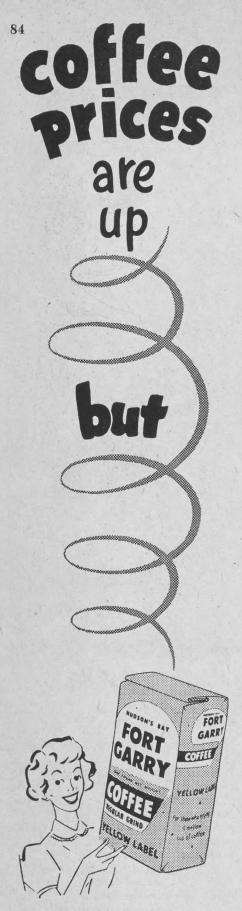
margarine, melted Divide this mixture evenly into prepared muffin pans and drop 3 pecan halves into each pan. Punch down dough and divide into 2 equal portions; form into smooth balls. Roll each piece into an oblong 1/8-inch thick and 12 inches long; loosen dough. Brush with melted butter or margarine.

Sprinkle with a mixture of 1/3 cup brown sugar (lightly

pressed down) 1/3 cup chopped pecans

Beginning at a 12-inch edge, roll up each piece loosely, like a jelly roll. Cut into 1-inch slices. Place a cut-side up, in prepared muffin pans. Grease tops. Cover and let rise until doubled in bulk. Bake in moderately hot oven, 375°, about 20 minutes. Turn out of pans immediately and serve hot, or reheated.





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Ready To Iron

Wrinkles that save you time and strength

by MARGARET M. SPEECHLY

CTUALLY, the removing of creases begins at the wringer. By feeding each article evenly, you can prevent a great many wrinkles from forming, and in that way cut down the amount of ironing to be done. The collars on men's light shirts if put through the rollers carelessly, are likely to develop heavy creases that are hard to remove with the iron. As you run through each piece, aim to use the wringer as a smoothing agent.

In hanging up the wash, give each article a brisk shake to get rid of the heavier creases and to allow the breeze to smooth out the fabric. Pin garments by the strongest parts so they will not get out of shape, use hangers for dresses and blouses, and you will find the ironing is reduced.

Plenty of line-space also helps to simplify ironing by allowing enough room for smooth pinning. If you need convincing of this, pin some of your tea towels evenly on the line and loop the others. One lot will dry ready to fold and put away, and the rest will have uneven edges and "dogears," where the pins held them.

Taking down the wash is simplified by the way you sort the wet clothes as they come from the wringer. Articles of the same kind grouped together on the lines can be made ready for ironing with ease and speed. When weather permits, it saves labor to sort the dry things as you take them down, especially if there is a table at the drying ground that is the right height for comfortable work. A folding bridge table can be used as a substitute. As you sort things, decide what needs careful ironing, what can be slipped over quickly, and what can be skipped entirely.

When your children are small or if you are recovering from illness, it is absolutely necessary to cut down work at every turn. Smart tactics on your part can reduce ironing without doing your family any harm. And even if you are bursting with energy, you probably could spend to good advantage any time saved on ironing day.

Start your campaign by storing for the time being anything that requires a lot of attention, and specialize on washables that can be folded and put away straight from the lines. Use only turkish towels or terry towelling in serviceable colors, provide knit undergarments for young and old, and use flannelette for nightwear. All of these, if hung neatly and folded smoothly, feel softer and fluffier when not

Go in for flannelette sheets too, either white or colored. Smooth them with your hands as you fold them. You can even skip ironing of white cotton sheets if you hang them straight, and smooth the damp hems with your fingers. When quite dry, fold and put them at the bottom of the pile so the weight of the other sheets will do the pressing. Use colored bedspreads that require no ironing.

Except for special occasions, let small children live in colored cotton jerseys and corduroy overalls. Encourage the boys to wear T-shirts or knitted jerseys with their slacks. Choose

simple patterns for dresses and aprons, and put away large damask cloths which take a lot of ironing. Colored lunch cloths if covered with plain plastic of the same size, do not get a chance to become stained or heavily soiled. Use paper napkins to save ironing and dispense entirely with doilies or buy paper substitutes.

After reducing to the limit the number of articles to be ironed, you can save further time and energy by the way you do the sprinkling. Aim to apply just enough moisture to do a good job-too little leaves the material looking rough when dry; too much slows up the ironing. The ideal way is to take things down from the line when they are exactly right for ironing, but a busy person seldom has time

Fabrics vary in the amount of moisture they take up. Linen must be quite damp in order to bring out its lustre, but cotton does with less. Rayon should be almost dry to the feel. Pure silk requires slightly more moisture than rayon. Very often, all that fabrics need is a damp towel between the layers to provide the right amount of moisture.

A LLOW plenty of time for the water to penetrate so that the dampening will be even throughout. Use warm water rather than cold and apply it evenly and lightly with a clean whisk or a bottle with a perforated cork. If an article is bone dry, apply more on the double thicknesses. Find out, week by week, how little water can be used and you will prevent delays when ironing.

Do not roll up things tightly or they will develop extra wrinkles. Instead fold the clothes in neat piles, lay them in the basket in the order in which they will be ironed and cover the whole thing to prevent evaporation.

Ironing is less fatiguing if the equipment is arranged in the most convenient position. Put the basket of dampened clothes on a chair at the left where you can reach it without stooping. At the right have a rack for the finished clothes, a place to put piles of flat pieces, and hangers for dresses and blouses.

Place a table or board where the light is best and be sure that it is the right height for comfortable work. Do not let the room get hot and steamy. If you use sad-irons, do all you can to shorten the distance between the stove and the board. With six instead of three you will get through the work more quickly. Be sure to cover them so that you will not require a big fire.

Learn to use a high stool with good back support and a rung on which you can rest your feet. You can make a dandy one by removing the tray and arms of an old high chair. Don't protest that you can't iron when seated until you give the idea a real trial. Anyone who is tired enough can learn to do so. Wear your most comfortable shoes and have a mat to stand on.

The earlier in the day that you tackle the job, the easier it will seem. Turn on a favorite radio program and the children will probably keep you When Writing to Advertisers company as you work.

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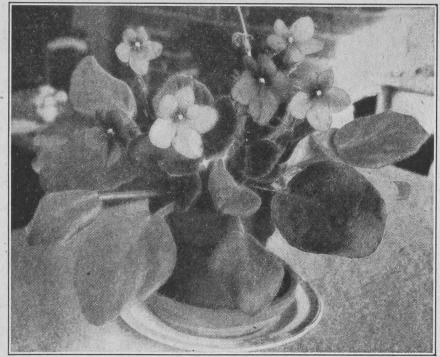
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Growing African Violets

My experience with a popular house plant

by EFFIE BUTLER

THE African violet, a comparatively new house-plant, has been enjoying a period of great popularity, probably because it grows fairly successfully where begonias, and like plants, thrive.

The so-called African violet, technically known as Saintpaulia ionantha, is really not a violet at all, but belongs to the Gesneria family of which the Gloxinia also is a member. It was discovered about fifty years ago in East Africa by Baron Walter Von Saint Paul who sent seeds of the plant to a friend in England. Specimens, grown from these seeds, produced seed which was carried to all parts of Europe, and later America.

In its native home the African violet grows in partial shade near a waterfall with its roots in sweet, rich soil. So keeping in mind its tropical habitat which provides plenty of light, warmth, and moist, porous soil has greatly aided me in the successful culture of these exotic plants.

Saintpaulias are not as easily grown as begonias. They might even be termed temperamental. The following cultural program has worked for me and should bring you satisfying results.

African violets thrive best in an east window with two or three hours sunlight each day; too much sun produces yellowed leaves and marginal burnings. Where necessary the strong sunlight of a south or west exposure should be veiled with a thin curtain. They enjoy a temperature range of 60 to 75 degrees, the lower figure being the night temperature, and vou will note this is about the same range as we use for a comfortable living room. The daily watering of a dozen or more plants will provide sufficient humidity unless the air in your home is noticeably dry. If you have only a few in your collection, place a wide-mouthed vase of water near your violets as a source of evaporation.

One of the most important points in watering African violets is that warm or tepid water should be used at all times. Cold water may throw your violet out of bloom. The amount of water depends upon the need of each individual plant. Pour water into a saucer under the pot each morning

but only the quantity which will be absorbed by afternoon. Naturally they will require more water during the winter months when the house is warm and comparatively dry.

Fresh air is a necessity for vitallooking foliage and richly-colored blooms. Indirect ventilation, by opening a door or window in an adjoining room, is the best method of supplying fresh air in our cold climate.

A loose soil is desirable. I use a potting mixture made up of equal parts of good garden soil, leaf-mold, and sharp sand and have found it assures me a long succession of bloom. African violets are heavy feeders. I have made it a practise to give each plant a light supplemental feeding, about twice a month, of one of the many fertilizers on the market. I have also found Vitamin B¹ to be an excellent stimulant, but this should not be thought of as a fertilizer substitute.

There is a belief, held by some, that African violets do not bloom until potbound. This is a mistaken theory. They require plenty of root-room. Three-inch pots are probably the best size for young, new plants. Plant violets quite shallow, just deep enough to cover the roots. It is very important that the crowns are not covered, for, as soon as they are, crown rot sets in.

There are three different methods of propagating African violets, by division, by leaf cuttings, and by seed. By far the most common method of propagation, and the one I use, is by leaf cuttings. Prepare a pot of rooting mixture, one half good mellow soil and half sand. Cut off, leaving half an inch of stem on two, three or more mature leaves. Insert the stems sideways in rooting mixture which has been thoroughly dampened. Keep moist but not wet and out of direct sunshine. In four to six weeks you'll be rewarded with "baby" plants. When the new plants are about one inch high lift them and pot in soil mixture mentioned above. If the "mother leaf" is attached, leave it until it decays, as it is feeding the little new plant.

If your violets become dusty, spray them with a bath of lukewarm water but never set them where the sun



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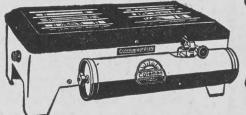
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reaches until they are perfectly dry. This will prevent sunburn and resulting ugly brown spots on the leaves.

African violets dislike to be moved around. If at all possible keep them in the same location year round. As a result of spiraling public interest and hybridization there are many varieties of African violets. A collection of the more common ones would include Blue Boy, Blue Girl, Orchid Beauty, Pink Beauty, White Lady and Du Pont Amethyst, all of which I have grown successfully with these methods. Whether you find African violets easy or difficult, free flowering or not, depends on the home you provide for them.

News about Canning

Information about rubber rings and sealers

You are sure to be anxiously wondering what sort of rubber rings you will be able to buy in 1949. Due to the complaints made by the Canadian Association of Consumers and other citizens, manufacturers have altered their formulas for rubber rings. They are confident their products will prove satisfactory.

As a consumer you will be on the watch to see how the new jar rings compare with last year's. Manufacturers state that in the past, women who complained about the flavoring of home canned foods by rubber rings could seldom recall what brand they had used.

To avoid any uncertainty, start now by mapping out a definite plan of action. Be sure that you are not buying old stock. Some of the troublemakers may still be on the shelves of the stores. Discard rings left over from last year's canning.

In a notebook write the brand names of the rings you buy in 1949. In Canada, the entire supply of rubber rings is made by two companies. They sell millions under their own brand names, and many more appear on the market under the trademarks of distributors.

Be sure then, of facts, because unless you are absolutely positive about the brands you purchase, the manufacturer will refuse to take the blame and will put complaints down to your imagination or to personal prejudice. As a double check, label or otherwise mark each jar to show what brand of rubbers were used.

It is most important to buy the right type of rubber rings for your containers. Every year there are new homemakers who do not realize that there are different sizes on the market. Rubbers for screw-top gem jars are smaller than rubbers for perfect seal jars, the kind with a glass top and a wire bail over the top. No rubber rings are needed for the type of sealer with a screw band and metal top with sealing compound attached. For these, buy new metal tops each year.

On the outside of the package look for Cut 12. This shows that a pile of 12 rings measures at least an inch. Cut 14 means that the rubbers are thinner because there are 14 to the inch. Check each package to make sure that the inner and outer edges of the rings are perfect circles. Last year some were definitely out of shape and would not fit the jars.

ARE you satisfied with the containers you are able to buy locally? Last year members of the Canadian Association of Consumers voted for jars with straight sides, large openings, flat tops, without any fancy designs that cause particles to lodge. The new stock to be put on the mar-

ket is better than in the past but still could be improved.

Larger openings make it easier to wash the containers and are ideal for whole peaches or pears and meats or poultry. This type is sold widely on the Pacific coast at a higher price than gem jars. Manufacturers state that on the prairies, women would not buy the newer style. The determining factor was evidently the price.

Manufacturers say that a larger opening is harder to construct. It means larger tops, rings and screws, and requires more raw material. The larger the jar the heavier it is, which adds to transportation charges. Make notes on the types of sealers you can obtain locally, and their prices.

Many complaints have been made about the inferior metal screws sold for gem jars. The material was poor, rusted easily, went out of shape, the edges were sharp, and after being used they were liable to go round and round and refuse to grip. Those I have seen this year are sturdier and smoother, but it will be well worth while to check local supplies.

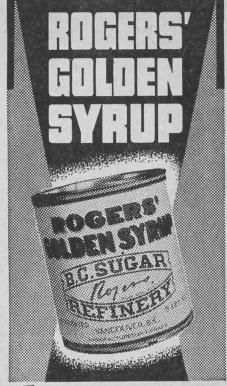
If you have canning troubles, do not blame the equipment until you have checked your methods. Send to the university in your province for directions. Stick closely to them and do not skip any of the steps. Experts agree that for fruits and tomatoes, the hot water bath or steamer gives the best results. Do not use the oven for canning. Serious accidents have occurred by jars being over-heated and bursting.

USE only a pressure canner for meats, poultry, fish, and vegetables low in acid. In a pressure canner, the temperature is raised far above boiling point. This destroys organisms that make food spoil. For a pressure canner to operate properly, the gauge must register accurately. If your gauge has not been checked recently, get it done right away.

Note: This refers only to pressure canners, not to pressure saucepans widely used for cooking.

When a gauge is not accurate, the food may be underprocessed which is dangerous to health, or it may be over-processed, resulting in inferior flavor and color. If yours needs attention, remove it from the lid of the canner with a pair of pliers. Pack the gauge carefully, just as you would a piece of china, in a box with plenty of paper or excelsior. Enclose your name and address and return postage. On the outside write your name and address.

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Tips For The Feet

Continued from page 83

over the toes and feet will do wonders toward keeping cuticle in line and the skin of the feet soft and smooth. Daily scrubbing over hard, calloused heels and soles, followed by a brisk drying with a coarse towel, then an application of petroleum jelly, will help keep the skin soft and so prevent corns and calloused spots.

One cupful of Epsom salts, or your favorite foot bathing preparation, in a two or three-gallon basin of hot water will prove most restful to tired feet. Foot balm, available wherever you buy your corn pads and moleskin, should be massaged over the feet after each bathing and brisk drying.

A wardrobe of preparations that help correct and prevent foot weariness is a fine investment that pays off in dividends of more placid facial expression. This wardrobe of foot-care accessories consists of a pair of toe nail clippers, a long steel file, an emery board, an orangewood stick, callous file, corn pads, moleskin or callous pads and of course the foot-bathing preparation, foot balm and foot dusting powder. Sprinkle on a bit of the powder over hot, tired feet before putting on stockings, especially if you can't give them a tubbing.

The best cleaning help I have at all times is "Spic and Span." The surface of my doors, windows, pantry shelves, kitchen table and chairs are finished with white enamel, with the chairs and table having blue trimmings. I use three tablespoonfuls to a half pail of hot water. There is no rinsing or wiping dry, but I use a good big wash cloth (an old face towel). I find it just right and wring the cloth almost dry. Keeping the enamel shining by this method is no trouble at all. Another help is to have table oilcloth on the kitchen wall, from the floor up to about a three-foot height, in a wainscoting effect. My favorite cleaner helps me keep it shining, with no finger marks showing.-Mrs. A. H. McKinnon, B.C.

Plenty of cleaning cloths and treated dusters is a great aid in the job of cleaning. Dusters can be made from old, soft-knitted silk, rayon or soft cotton. To treat a duster so that it will pick up dust readily and give a polishing effect at the same time, take one pint of boiling water and add to it 1/4 cup of lemon oil. Stir well so that oil mixes with the hot water. Immerse six or seven cloths into the mixture. Let them absorb as much of the liquid as possible. Then squeeze each cloth and hang them so that they dry thoroughly. When the cloths become soiled from use, wash them in warm suds and treat them again .-Mrs. R.J.

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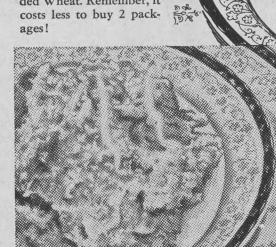
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Tracks In The Sage

Continued from page 15

gaze came back to the horses tied at the corral and his eyebrows came down to meet over his straight nose. Even at this distance and with the sun in his eyes, there was no mistaking the beautiful black horse. It was Claude Ormond's classy mount, Sir Galahad!

What was Claude Ormond doing here at Nought 9? Oh! It was probably on business, since he was the agent who had sold Frank Sheppard the property. Don had met Ormond, as was natural when both men were actively courting the same girl, though with Ormond having a definite edge because he could visit Foster's Slash F openly and freely.

Yes, Ormond had had a definite edge in that respect. But-Don's swiftly shifting thoughts leaped back to the dance of two brief weeks ago in Elkmont. At this dance it had seemed plain both to Don and to Claude Ormond, particularly plain to Ormond, that Don Marr was riding top horse with the bonny girl of Slash F. Furthermore, Claude Ormond had shown Don he was pretty sultry about

A smile lighted the young cowboy's somber face. Thinking of Ormond and of Annette, he had almost forgotten his immediate problem, a problem both horrifying and frightening. He couldn't believe his own father had shot Sheriff Taggart, but as yet he had no proof to the contrary. However, those two horses heading into this Nought 9 ranch didn't look right at all; and proof of what was to be found down there in the gulch. Safest and wisest to wait until full dark; then Don would-

THERE came a rustle of movement behind him. He thought at first it was merely a squirrel or a blue jay, but the rustle became the distinct sound of a footstep, and as Don pivoted, snaking out his .45 a voice rapped:

"Drop it!"

Don's amazed eyes snapped wide open. Two men confronted him, one with a rifle, the other with a Colt, both weapons cocked and ready to be fired. He might, by a freakish chance, drop one, but not both. His hand opened and his weapon plunked to the ground.

Sizing up his captors, he reckoned no argument he could make would get far with them. One was a dishfaced, wicked-eyed runt; the other, burly, with hunched-forward shoulders and a brutal face with a white scar from left temple to the point of his chin. Strangers to Don, but gunhands of the same stripe as the dry gulcher with whom he had tangled on Pole Mountain.

They exchanged quick, slant-eyed glances, and Dishface said, "The boss had the right hunch when he ordered one or t'other of us to keep a lookout all-a-time.'

"Yeh . . . You tie him. Then we'll prod him down to the shack."

NNETTE FOSTER often thought A twilight in summer the most beautiful time of day. But in July the mosquitoes and the gnats made life miserable for man and beast at this lovely hour. This evening, however, she forgot the buzzing, biting mosquitoes as Curly Bent dashed into the

yard and reined up at the kitchen

What's new on Cross M, Curly? I've been expecting you home for hours," wiping her hands on her apron, for she had been making biscuits for supper. "Dad's feeling some better, and is out puttering at the chores."

Curly slouched sideways in his saddle and curled one leg around his saddle horn and jingled a spur rowel with his fingers. "Then he felt pretty

"Did he! He got a mental upset even worse than mine . . . Curly, you realize this just as well as Don and I realize it: Those two cantankerous oldtimers don't really hate one another."

Curly's pleasing grin flashed. "Sure not! But do they get a kick outa fightin' and cussin' one another out!"

"And now-now that something terribly serious has come up, Daddy's down, sunk." Annette looked up quickly and smiled and blushed. 'Don's been here, Curly."

"Uh? He know anything about the funny business?"

"No. And I'm sure he was telling me the truth. He was up on Pole Mountain to get his chestnut horse and -But where have you been all day?"

"Cross M mostly. Workin' with old Timberline. Annette, that long, hungry ol' hairpin is the doggonedest-"

"Working with Timberline"? What do you mean?"

We-ell, when I told Timberline what had come up, he plumb blew his top. There was a nigger in the sticks and he'd smoke out the nigger. Timberline was so dead sure old John Marr had been framed, he convinced me it could be that way. And right off he began cuttin' for sign. I tagged along, doin' no good a-tall, while he prowled like one of them bird dogs. Ye-ah, he even smelt of the grass and bushes. He insisted we work afoot, sayin' a tracker couldn't do nothin' squintin' down at the ground from a horse's back."

Annette was tiptoe with eagerness. "What did Timberline find? What more than we found?"

"The darned ol' cuss wouldn't tell

double dead sure he'd got the polecat

Annette laughed shortly. "Did he say he'd gotten a whiff of it, Curly?"

"Well," and Curly grinned, "he allowed the whole thing was skunkish. He said the first hint was when the Angus bulls got out of the pasture without anybody on Cross M knowing how come."

"Without anybody on Cross M knowing how come?" Annette repeated.

Curly nodded. "Timberline was plenty sore because Don lit out without talking to him. He told me he reckoned the kid flew off the handle and jumped to conclusions that weren't so a-tall."

"Curly, if John Marr is the victim of a frameup, and if you worked with Timberline all day, you must have learned something to help us."

"Can't say I did," answered the cowboy. "Usin' my own hoofs to get around on, I petered out pretty quick, and I ambled to the Cross M house. There I mixed up a feed for me and Biff Sloan. Afterwards I tried to find Timberline and couldn't, then I had to come home to get at the chores . . . What's new here? Where'd Don go? Your dad order him off the place?'

"I wish I knew what Timberline has accomplished . . . Don? Oh, he went to Elkmont to help his father. Of course he would, even if they did fight . . . Dad was asleep, didn't see him to tell him to get out . . . Don'll be back soon, I hope! Well, supper's ready, Curly."

SUPPER was over and full darkness had been a half hour on the land when Annette heard a horse coming. "Don!" she thought, and ran out into the yard. Disappointment lanced through her as Claude Ormond's Sir Galahad loomed and Ormond's wellmodulated voice called, "Hello, my dear, troubled girl. Glad to see me?"

"Yes, Claude, of course. What can you tell us?"

Curly, finishing the dish-wiping, stepped to the lighted door behind Annette. Thereupon Ormond threw him a nod and ordered, "Get Annette's me. Said he wasn't talkin' till he was horse for her, will you, cowboy?"

"And mine too?" asked Curly pointedly.

Ormond laughed lightly. "Do we need a chaperon? No, Curly; I can take care of her."

Curly slouched off toward the

"Where are we going, Claude?" Annette asked eagerly. "I can tell by a certain excitement in your eyes you've got something important to show me or tell me."

"Suppose we keep where we're going secret for now," countered Ormond, "and not get Dad Foster and Curly all worked up about it . . . Yes, it is big and important, my dear. You will ride with me, of course.'

"Surely. Just a minute till I get a jacket-and tell Daddy I'm going for a ride with you. Make it sound as if it's the truth."

When the girl was mounted, Ormond started along the road to Elkmont. But once the Slash F was left behind, he turned right, heading in a southeasterly direction across the hills.

Well, what is it, Claude?" Annette impatiently broke the silence.

The man looked at her profile, and then looked away and sighed deeply. "I hardly know how to begin," he said. "You see I am in a difficult position."

"You're in a difficult position!" Annette flashed. "Why? Darn it all, Claude, don't be so mysterious! Where'd you go after leaving Cross M this morning? And—'

"A good place to begin," Ormond interrupted. "I rode to the 2 Z, south of Cross M along the foot of the mountains. I talked business with Dell Scarber and had dinner with him. Then, this evening, I cut across country toward Elkmont. This trail led me past the Nought 9, which, as you know, was recently purchased by Frank Sheppard."

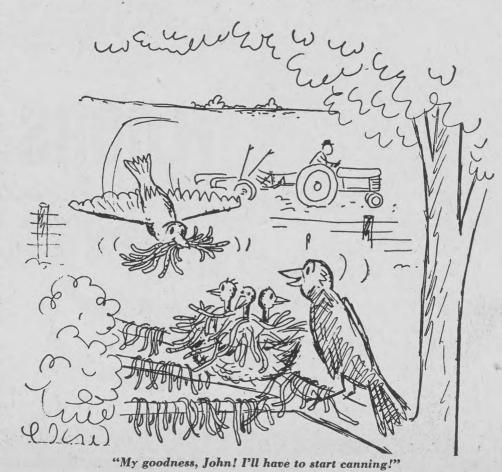
"Yes," said Annette, making no attempt to hide her impatience.

WITH the coming of night had come also a hint of impending rain, and now clouds were scudding across the sky and beginning to gather in ominous fashion. A cold little wind rippled the scarf around her throat, and brought with it the smell of lush grass from Slash F's wide meadows, as well as the redolence of cedars and pines.

The plodding horses' hoofs rustled the sage and the vast lonely silence of the rangeland seemed to wrap itself around the two riders moving across its dark emptiness.

Claude Ormond drew a deep breath. "Annette dear, this is going to shock you. I'm terribly sorry, and I still can't believe it myself. I am in a difficult position because you, more than any other person, know that Don Marr and I didn't like one another any too much. But in spite of that, I want to assure you that I am fair. I won't condemn any man without irrefutable proof."

Annette said very sharply, "Stop talking like a book. Already I've been numbed and sickened by what has happened. But just seeing Don Marr today pepped me up. Hearing Don say that no matter how black it looked for his father, he was sure that old John Marr was innocent, and sure that things would yet come out all right, brought back my courage . . . Now, let's have the shocking part of your story."



Ormond's left stirrup squeaked as he shifted in his saddle, gazing intently at her profile. Gazing intently and very thoughtfully. "You saw Don today? At what time today?"

"At what time? Does that matter? It was noon. But although Don must have been half starved, he didn't stop for dinner. He took the road to Elkmont to see his father."

"Noon, u m?" said Ormond.
"Where'd Don say he'd come from?"

"Straight from Pole Mountain . . . Claude, have you any reason for asking-"

"Please, Annette, be patient. I do have reasons for these rather personal questions. The major reason, my sincere desire to help Don Marr."

Annette twisted in her saddle so quickly she almost wrenched her back. "Is Don in a jam?"

"I'm afraid—Well, it's not so serious but what I'm sure we'll get everything straightened out. When I arrived at Nought 9 this evening Frank Sheppard was just riding in—with Don as his prisoner."

"Claude, are you kidding? That's ridiculous."

He answered tautly, "The sad, the tragic part of it all is that I am telling the truth. This Sheppard is an ungainly, rather stupid fellow, but his story—"

"Why would Sheppard capture Don, and why would he take him to Nought 9? Claude, it doesn't make sense." Annette was aware she was showing how provoked she felt; showing something else as well—and to Don's rival at that—her very deeply-rooted interest in Donald Marr. She had lifted her bridle hand, but Ormond urged Sir Galahad onward and Annette's mount forged up alongside once again.

"We'll soon be at Nought 9," said Ormond. "Consequently, I'll let Sheppard tell you what he told me . . . In replying to Sheppard I told him flatly to hold his horses and that I would bring you, Annette, to see him and Don and we'd then have Don tell his side of it in his own way."

"What is all this!" Annette cried.

"What is all this!" Annette cried "Let's ride faster, man. Faster!"

As they spurred to a furious lope, Ormond called, "Dear girl, I must warn you that the horrifying shock is yet to come. Be prepared for it. But of course I'm pulling for you and Don. I sincerely believe he is innocent."

"Innocent of what?"

The girl's question went unanswered. The horses had dipped into a gulch which led to the narrow valley wherein lay Nought 9. Coming out of this side gulch, they turned right and halted in an open space lying between pines and a brightly illuminated cabin.

FRANK SHEPPARD, tall, angular, slouchy in appearance, and with what Curly Bent would have called a "peanut head," stood at the open door. Behind him in the main room of the shack Annette caught a glimpse of three other figures, one of which was Don Marr. Don, hatless and gunless, seated on a nail keg, with his hands tied together behind his back.

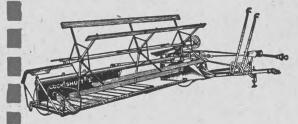
Her feet touched the ground, and she was crowding past Frank Sheppard before Claude Ormond had dismounted.

"Don! What does this mean?" Her hot, bright eyes shifted to a burly, hunch-shouldered individual with a white scar on his brutal face, who was calmly washing the supper dishes. Then her gaze went to a medium-sized



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AUTO WRECKING CO. LTD. 263 to 273 Fort St. Wi Winnlpeg fellow who appeared to be nothing more or less than the average hired man, and came back to Don. He tried to smile at her, but there was no lightness or gaiety in his face or eyes. He looked angry, baffled and in actual misery.

Sheppard had stepped outside. Although Annette could distinguish no word of the conversation, she caught the sound of Claude Ormond's voice speaking to the rancher before the two men came into the room. Annette's eyes were shooting sparks as she turned to face them.

"Well?" she demanded.

Claude Ormond said quickly, "Frank, you tell Miss Foster what you told me. How you were riding home from Elkmont, and shortly after noon, somewhere about one o'clock, you saw Sheriff Taggart's body lying beside the road. How you saw Don Marr attempting to brush away certain footprints -or other sign-near the body, with a pine branch. And you saw young Don Marr's chestnut tied some fifty yards farther back along the road . . . Go ahead with it, Frank.'

Annette felt as if her knees had turned to butter. She put one hand on the table to gain support, and opened her lips; but no sound passed them.

Sheppard, apparently ill at ease, and refusing to meet her eyes, muttered, "Er-um. Struck me right off as Don Marr was actin' awful s'picious, and when I come in closer and seen Taggart had been shot dead-Well, I cracked down on Don with my leadthrower . . . He was so intent on what he was doin', I got the drop afore he

"I asked some right pointed questions. He jus' buttoned his lip and kept it buttoned. So, not messin' around none to interfere with the sign near the body, I walked Don to his horse, got him in the saddle and brought him here."

"Why'd you bring him here?" Annette heard herself ask, her mind whirling, whirling.

Sheppard hitched up his sloppy overalls. "Well, with it lookin' like Don Marr had killed the lawman, I figured I'd get a couple of my men to go back there with me and look things over and help me take Don to town. If that was what we decided we had ought to do."

THIS line of reasoning didn't make ■ a great deal of sense to Annette. Claude Ormond had placed himself beside her as if in the role of protector, and with a great effort she pulled herself together. "Mr. Sheppard," she said, "look me in the eyes. Did you see anything of old John Marr? Of his horse, or the sheriff's horse?

'No'm, I didn't . . . I hadn't been home long when Claude Ormond come, and I was mighty relieved 'cause I'm only a kinder dumb, honest rancher, and Ormond'd know what to do."

Ormond put in, "Don refused to talk even to me, Annette. But after I'd listened to Frank Sheppard's story I immediately decided to bring you to this ranch, and then ask Don to explain. It's something I'm sure he can do both to your satisfaction and to mine . . . Before he begins, however, I want to emphasize that Sheppard knew nothing whatever about the arrest of John Marr and that Sheriff Taggart was taking Marr to Elkmont."

Sheppard threw up his head. "So that was it! I sure was puzzled to figure any motive for Don to shoot Taggart. But now-Golly!".

Offering no comment, Don glared at the rancher as if he'd enjoy strangling him. Ormond said smoothly, Ready to talk, Don?"

"Please do, Don, and clear up the unpleasant situation," implored Annette.

She watched the young man throw a glance at the closed door leading into the second room of this cabin, and saw his expression change from raw, cold anger to one of bitter frustration.

"I wish you hadn't come, Annette," he began in a flat, toneless voice. "But to get it over with: I killed Taggart!"

Annette swayed dizzily. She would have fallen had not Ormond's right arm supported her. As if experiencing a nightmare, she heard Don Marr go mounted her horse. Sheppard and Scar remained in the cabin with Don. Hubbend hurried to the corral and returned in a very few moments with three saddled horses, one of them Don's superb chestnut, "High Fence."

Ormond said, "Come, come, Annette, let's get away from here. I'm so sick about the affair I don't want to watch those fellows put Don on his horse," and catching the bridle of Annette's horse he led it away into the darkness.

THE threat of storm had become I pronounced, scattered raindrops already falling. It wasn't cold, yet Annette was shivering as if she were half frozen. Her heart was completely frozen.

As if his deepest sympathy was centred on the stricken girl, Claude Ormond made no attempt to break in on her thoughts. Thus four miles of the homeward trail had been gone



"What I can't understand is why they call it horsebreaking!"

on implacably in that same flat, bitter

"My father took the cash Taggart was carrying. He took the sheriff's horse as well as his own and headed for a new range . . . That's all, Annette.'

"Then, Don," she choked, "considering the time element, you must have done that before you came to see me. Before noon. And at that time you seemed so genuinely surprised when I told you about-about-'

Don broke in roughly, "Let's not bring that up." His eyes had turned coal black and glowed like balls of fire. His rugged face was as tight as a drum. "Ormond, get her out of here! Take her home!'

"I certainly will take her home," said Ormond, a strangely exultant ring in his voice. "I'd hoped—Annette knows what I had hoped. But it's no use now. Now that you have confessed in the presence of witnesses, Don Marr . . . Eumn? Frank, have these two men of yours take the killer to Elkmont and report to the mayor. He'll attend to having a peace officer appointed temporarily to fill Taggart's place.

"By the way, you two fellows, Scar and Hubbend, be sure you get Don locked safely in jail. Tell the mayor to have someone-a posse-perhapsget on John Marr's trail at once! I may get to Elkmont yet tonight, and Sheppard will come in tomorrow to report what he knows . . . Annette, dear, if you're able to ride, we'll go."

Without being conscious of physical movement Annette went out and over in silence before he said gently, "I'll do everything in my power to see that the money is recovered, my

"The money! Daddy's money!" Annette's laugh was almost hysterical. "I'd forgotten all about it . . . Money doesn't seem at all important any more. But of course it is . . . Claude, I've been trying to think things through rationally.

"Don't try to think or reason now. All has been so shocking for you. Just relax and try to forget Donald Marr."

"I'll never forget him! . . . Claude, there are some things about this horrible business that don't make sense."

"A woman's reasoning leaves a man baffled," murmured Ormond. "However, surely you realize that practically every point of the robbery plot has now been cleared up. There is no longer any mystery whatever-

"Oh, but there is!" Annette broke in. "To me, certain angles are now more mystifying than ever. For example-'

"Please, let me put your ideas on the right track," interrupted Ormond quickly. "Here's the way I see it: The Marrs, father and son, concocted a scheme to bankrupt Jim Foster. We now know how this scheme was put over. Unfortunately for the two tricky thieves who robbed Foster, horse tracks gave them away. But Donald Marr, hiding on Cross M, witnessed the arrest of his father and saw Sheriff Taggart start for Elkmont with his prisoner and the cash.

"Knowing the original plan had gone haywire, Don intercepted the lawman and murdered him. At this point it was a foregone conclusion that old man Marr must make himself hard to find. Donald Marr, however, firmly believed that he himself was in the clear. No doubt he expected to return to Cross M and take charge of the outfit. Foster of course would still be responsible for the stolen cash, and therefore on the rocks."

A NNETTE, who had listened attentively yet impatiently, put in a word. "But, Claude, when Don came to Slash F at noon today, he had just returned from Pole Mountain, where he'd been all night. His bewilderment when I told him what had happened was so genuine that—"

Ormond snapped his fingers. "He was merely acting out his part! Don came to see you in an attempt to create an alibi for himself for the time of the original robbery. Do you suppose he can call a witness to prove he was on Pole Mountain? I don't."

"Humn?" mused Annette miserably. "The men who work on Cross M, Timberline Johnson and Biff Sloan, probably know that the chestnut horse Don calls High Fence had jumped out of the pasture and was running with a wild bunch on Pole Mountain. The very fact that Don now has that horse does prove he was out after him and not at home or near home.

"One human witness did see Don on the mountain, too. But—Claude, why—why should anyone have tried to drygulch Don? Yet this man did try it. And Don killed the fellow in self-defense. It was someone he'd never seen before."

Breaking off, Annette looked intently at Ormond, and saw that his handsome face was unnaturally harsh and cold. The cords in his neck and his lips were tight drawn—as if he was savagely angry.

After a moment she said, "Youyou don't believe it? You think there was no such person?"

"All wild imagination, Annette. And please think no more about it . . . Donald Marr put on an act to hoodwink you. Afterwards, as he rode toward Elkmont, he noticed he had left footprints at the scene of his crime, and he was caught in the act of trying to obliterate those footprints

and other signs. To his undoing Fate had stepped in. Fate in the form of a stupid rancher named Frank Sheppard.

"Realizing he had been caught almost red-handed and had no remote chance of clearing himself, tonight at Sheppard's ranch Donald Marr decided to make a clean breast of his guilt . . . I'm terribly sorry, Annette dear, that he is guilty. But aren't you really glad you found out before it was too late what sort of man he is?"

Annette murmured wearily, "It seems as if you're right, Claude; but—Oh, someone's coming our way. Fast."

A horseman riding at a furious clip materialized against the cloudy skyline. He proved to be an unusually tall man, wearing a high-peaked black hat which further accentuated his great height and made him a marked man even in the rain-spattered darkness.

"Timberline Johnson!" Annette cried, and for some reason felt her low spirits lift at the sight of this old hand from Cross M. Of late she had seen little of Timberline, but all through her childhood she had known the ex-scout quite well, and with young Donald she had often been entertained and thrilled by his hairraising stories of adventure on the frontier.

EVEN though Timberline worked for John Marr, and was as loyal to him as Curly Bent was to Annette Foster, the girl knew Timberline was "a plumb good old scout."

The tall man, having sighted the two riders, had abruptly halted. "Who is it?" His challenge was gruff and terse

Ormond replied instantly, "Claude Ormond and Miss Foster."

"Let me hear the girl speak."

"Suspicious, isn't he?" commented Ormond. "Always did impress me as a stupid old fool. A bag of wind!"

"It's all right, Timberline," Annette called. "And are we glad to see you!"

Timberline sent his horse plunging forward and again pulled up short. Annette smelled the horse's rank sweat, heard its heavy panting breath, and the man wasted no words in greetings.

"Sure glad I ran into you, Ormond," he began. "Right now I can use a good man. Didn't figure I had time to get to Slash F for help. Not after I



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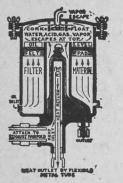


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found Taggart's body and him shot in the back three times . . . Annette, you fog home, get Curly and your dad to flag their kites to Nought 9 ranch, pronto. Ormond, side me."

He started to spur around the two other horses when Ormond's sharp voice lashed out and stopped him. "Hold it, fellow! Hold it! As you cowpunchers say, "What's eatin' on you?"

"We'll chinwag as we ride. Come on!" rapped the lanky old-timer. "Annette better hear this, too. Then she can turn back. I'm scairt stiff I won't be in time."

Ormond reached out and caught the man's bridle. "In time for what, you old—?"

"Have I got to draw a picture for you! Listen: This mornin' Curly told me what happened—Foster robbed, the sheriff grabbin' ol' John and a wad o' dough hid in Cross M house. I cut for sign. 'Twan't easy. Yet after a long time I cut the snake's trail.

"Two human coyotes come to Cross M, hid their hosses in willows, got Cross M hosses and saddles, rode to stick up you and Foster, Ormond. They done it. Rode back again to Cross M. They covered this double trail like they didn't want it found, but so it would be found. Planted the boodle in Marr's bedroom, they did. Got their own brones and headed out. And was they real careful to hide these tracks, both goin' and comin'!

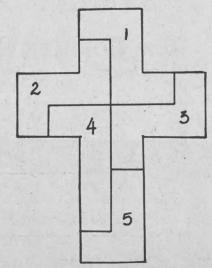
"Cuttin' it short, them two snakeeyed polecats come from Nought 9 and went back there again. On foot I tracked 'em that far and had my looksee. A sentry was posted there at Nought 9. Sheppard and two other men was messin' around, doin' nothin'.

"I sunk out without 'em seein' me, hoofed it as the crow flies to Elkmont to get Taggart and old John, 'cause when I told Taggart what I knowed he'd sure let my boss go free."

A NNETTE, listening wide-eyed, interrupted the rapid stream of Timberline's words. "What time were you at Nought 9, Timberline?"

"Middle of the afternoon. Why?
... Goin' on: Taggart wasn't in Elkmont, nor ol' John. Nobody had seen
'em. Struck me I had to get the lawman, for nobody else would do to
take care of this hell-hatched scheme.
I waited an' waited, gettin' frettier
every minute.

"Come night and still no Taggart. I got me a hoss at the livery, headed out on the road to Slash F. Maybe Taggart had stopped there. Anyhow I'd get Curly and Jim Foster. Then, b'gad, I come spang onto Taggart's body aside the road. Him shot in the back and dead for hours. No sign of his hoss, nor of ol' John's neither.



Answer to puzzle on page 97.

"All at once I put two and two together, and the cold sweat broke out like smallpox rash. I knowed what had happened. I just plain knowed it! And I headed crow-flight to Nought 9. Let's go, Ormond. Let's go!"

Ormond's hand tightened on Timberline's bridle, and Annette cried, "What had happened, Timberline?"

"Them two-timin' snakes on Nought 9 had beefed Taggart, makin' it appear like ol' John done the job and lit out with both hosses. But really them cusses took ol' John with 'em. Chances is a thousand to one he's been kilt and planted a'ready. But—"

Claude Ormond cut in, "Look here, you!" he snapped. "How from merely finding the dead sheriff could you make any deduction and reach any such astounding conclusion? It's ridic—"

"'Tain't neither ridiculous! Dang it, man! When it come over me I figured I hadn't time to go to Slash F even. 'Twas puttin' two and two together. That simple. Listen: Two coyotes on Nought 9 framed ol' John for robbin' Foster. That I knowed. To make the frame-up stick, they left the dough on

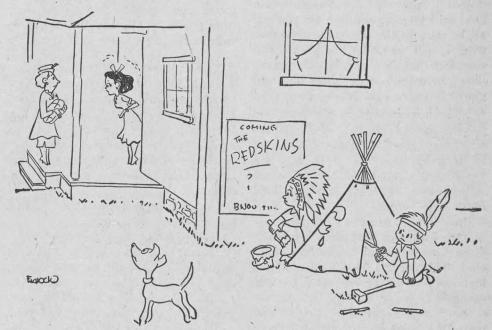
b'gad I'll send the men who kilt him to hell!"

A NNETTE'S brain had been racing. She had made deductions and had reached the same conclusions as Timberline long before he had fully explained the reason for his belief that John Marr had been taken to Nought

Nor was this all. Timberline's idea of what had actually happened, coupled with her own recent bewildering and numbing experience there at the Nought 9 ranchhouse, called for another deduction and conclusion. The thought which now came to her lifted her spirits, giving her new life, new hope. Donald Marr had not murdered Taggart! Neither of the Marrs was guilty of any crooked work!

In some manner as yet unexplained Don had run foul of Sheppard and his gunhawks and—She heard Claude Ormond saying heatedly, and yet skeptically mocking:

"With all due respect to an old Indian scout, Timberline, I must point out you're jumping to conclusions. You're all wet, and I'll tell you why.



"Mother! Have you seen my new ballerina skirt anywhere?"

Cross M. That had me bothered plenty. I couldn't figure the angle. Sure they must have wanted the dough, and bad. Thieves always do.

"But not until I seen Taggart had been beefed did I see through the double-barrelled scheme. Them lousy crooks had figured ahead of time how they'd stick the frame-up on ol' John and still get the dough. Get it easy! Taggart was mighty nigh sure to take ol' John and the cash to town. The crooks'd waylay 'em. Which they done.

"The rest of their plan—if I gotta waste time sketchin' it for a danged chump tenderfoot named Claude Ormond—was clever and snakish and nigh fool-proof. Fool-proof 'cause them devils is smarter'n hell at hidin' horse tracks. I know. The plan was for ol' John to plain disappear, and the thing everybody is to believe is that he drilled Taggart and lit a shuck. And you can bet your last chaw o' tobacco, ol' John was never to be seen alive again, nor his hoss, nor Taggart's.

"But the joker in them crooks' deck is me. I know that because they pulled the first frame-up trick they likewise pulled this second hell-born one . . . If you ain't sidin' me Ormond, let go my bridle and get out my way. Chances are I'll be too late now to save ol' John's life, but Donald Marr, the old man's son, has confessed to murdering Sheriff Taggart."

Timberline, who'd been literally champing the bit, stiffened in his saddle. "Don? How'd he get in on this tricky deal? . . . Where is he now? Don't stop to give me details. Where is Don?"

"At Nought 9," Annette cried. "And now I see at last why he said he'd shot Taggart. It was because—"

Claude Ormond's voice lifted to smother her words. "Damn a man with a stubborn, one-track mind! . . . Old-timer, I see you've got to hear it from Don's lips before you'll believe it. So get going to Nought 9. I'll be with you in a minute." He released his grip on Timberline's bridle and immediately caught Annette's mount by its head-stall.

"Just a minute, Annette. You're to go home. But I must say something to you first."

Timberline had rapped out, "Don at Nought 9! That right, Annette?"

"That's right. But-

The old hand snapped. "Come a-hell-in', Ormond!" And his spur-goaded horse left the vicinity as if shot from a gun. Over his shoulder his words drifted back, "I hope to God we're not too late!"

BADLY shaken once again, Annette faced Claude Ormond in the misty darkness. "If you won't let me go, Claude," she said wildly, "go with him yourself! Don't you see—You must see now that Don lied to us there in that cabin because he was helpless. Because Sheppard and his horrible men had told him he must say what he did say or they'd kill his father!"

"Annette, my dear, dear girl, calm yourself! Don's father isn't there. He wasn't there. He hasn't at any time been there on Nought 9. How I wish we hadn't met that crazy old Timberline. His story doesn't hold water. The basis for his wild idea that someone from Sheppard's ranch murdered Taggart is so absurd no one can possibly believe it."

The girl didn't answer. She was staring at the man and wondering why he was trying so hard to convince her that Timberline's conclusions were farfetched and false. All those earlier little inconsistencies which she had found so hard to accept on this night's adventure were in her mind, and a growing suspicion was beginning to dawn there as well.

"Regrettable and painful though it is for both of us," Ormond resumed, his tone now smoothly placating, "the plain ugly facts are that Sheppard caught Don practically red-handed and that Don confessed the crime. Don't forget the two Marrs did rob your own father, Annette. I was with him when it happened, and although I have been reluctant to damn anyone, I can and will take oath that the two masked holdup men were John Marr and his son."

"You will swear to that?" asked Annette in a very uncertain, shaky voice.

"Yes. And any testimony this Timberline can give on the witness stand—all this fol-de-rol about his finding horse tracks—won't stand up. You must remember, Annette, that Timberline is on Marr's side in this trouble. He wears the Cross M brand. His loyalty to the Marrs may be commendable, for I believe he'd lie, steal, cheat and perhaps kill for his employer and Don."

"Yes, I think—I'm sure he would do anything for Don and his father," said

"Exactly!" Ormond ejaculated triumphantly, as if certain he had scored a point. "He has made a fantastic attempt to divert suspicion from both father and son. I saw through it at once. And he almost sold you the idea. That was why I simply had to have a few words alone with you before you went back home."

Ormond bent toward the girl, and she had the uncomfortable feeling that his eyes penetrated the gloom to look right through her. "Now I am asking you, Annette, to trust my judgment fully in this. Let me handle in my own way the touchy situation on Nought 9 which is sure to develop when Timberline storms in there."

"He'll be there long before you can possibly get there," Annette began.

"No. Sir Galahad can easily overtake his logey mount! And I'll prevent the old fool from doing anything silly. But you, because I love you, because your safety and happiness mean all the world to me, must not take chances of running into the grave danger of a possible gun fight.

"So you see you must go straight home. But when you get there, don't upset either your father or Curly. Don't, please don't, I implore you, say anything to them about any of this. At least until I come. You'll promise, won't you?"

The suspicion which had earlier dawned in her mind had grown to enormous proportions, and the idea now dominating Annette's mind was so overwhelming that she could not have spoken had she wished. Doubtless it was well for her that Claude Ormond took her silence to mean assent.

RELEASING her horse's bridle, he said, "Sit tight until I come, dear. I won't be long. But now I must hurry. I must hurry."

Then, like Timberline's mount, Ormond's Sir Galahad vanished in the night, running at full speed, and only a few seconds later Annette Foster followed. Ormond hoped and believed that he had her hoodwinked, and so believing he had left her free to go home. But she simply didn't dare take the time to ride to Slash F. Timberline's life was at stake, and so were Don's and John Marr's. But—a sob caught in her tight throat—it was probable she'd be much, much too late to save either the man she loved or his father.

It was useless for her to cut across country in an attempt to intercept Sheppard's men, who had been charged to take Don to Elkmont. Until she had lost faith in Claude Ormond, she had supposed they would do this and would actually put him behind bars. How blind she had been. How stupid not to realize much sooner that Ormond and Sheppard could not allow Don to tell his story in town—to tell the truth!

She pressed spurs to her staunch pony, forging on through the dark night. While she was yet a mile, however, from Nought 9, the ominous sound of rifle and pistol shots whipped across the hills.

To BE CONTINUED.

NOW-EFFECTIVE BRUSH CONTROL with Green Cross Activated BRUSHKIL

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Activated Brushkil gives you remarkable control of brush growth and other woody plants on utility rights of way, roadsides, pastures, range lands etc. Now you can set up a truly effective brush clearance program, eliminating tedious mechanical clearance, replacing it with simple spray application.

Especially effective on BRIARS AND BRAMBLES, POISON IVY, POISON OAK

BETTER WEED-KILL WITH 2,4-D PLUS

Research has now proved that the most effective weed control depends on more than the 2,4-D acid. The most efficient weed-kill depends on the combined action of the entire formulation—oil carrier, emulsifier, and coupler as well as the 2,4-D itself.

Read what J. S. Skaptason, B.S.A., Technical Supervisor, Green Cross Insecticides, has to say:

"Acid content is not the only factor in the choice of a 2,4-D product," says Mr. Skaptason. "It has been found that other ingredients in a 2,4-D formulation have a most important influence on the effectiveness of the product.

"We make these statements with confidence," continues Mr. Skaptason, "on the basis of our own Canadian experiments, which included almost 5000 experimental field plots during 1948. More than 2400 of these plots were located right here in Western Canada and were

devoted to a study of the effect of 2,4-D on flax, wheat, barley and many other of the common weeds. This research proved that the other ingredients in a 2,4-D product are very important. 2,4-D Ester does not go into the plant by itself. It is carried into the leaf by the other ingredients so that it can go to work."



FOUR INGREDIENTS ARE THE SECRET OF WEED-NO-MORE

SUPERIORITY "We also proved that each of the four ingredients in Agricultural Weed-No-More contributed to the superior effectiveness of this product. Any formulation which lacks one of these ingredients is inferior in effectiveness.

- 1. The Oil Carrier in Weed-No-More was chosen from over 200 oils tested. This special oil increases the effect on weeds, decreases the danger to crops.
- 2. The special Emulsifier was proven to cause less plant burn and give better control of weeds than any other emulsifier used.
- 3. The Butyl Ester of 2,4-D penetrates quicker. Rainfall minutes after spraying cannot wash it off.
- 4. The Coupler makes for a more stable formulation. It gives easier mixing in soft or hard water and better suspension in the spray tank".

WEED-NO-MORE IS THE MOST ECONOMICAL WEED-KILLER!

"It is these field-tested ingredients in the proper proportions that make Green Cross Agricultural Weed-No-More the most economical weed-killer in terms of the cost of effective weed control per acre.

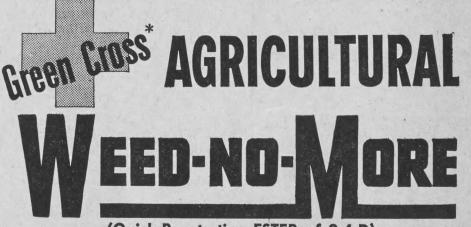
"In 1948 alone, over 6,500,000 acres of grain crops in Canada and the United States were sprayed with Agricultural Weed-No-More".

THIS FARMER CUT DOCKAGE COSTS IN HALF

John Ryz of Dauphin, Manitoba, sprayed part of his flax with Agricultural Weed-No-More. He says...

"Use of Agricultural Weed-No-More doubled my flax yield on 50 acres, and gave me an increase of 3 bushels per acre on the remainder. It made my crop much easier to combine. Dockage on sprayed portion was half that of unsprayed portion. In fact, I was not even able to harvest some of the unsprayed crop because of the heavy weed growth."

Kill weeds in your crops with Agricultural Weed-No-More. It penetrates quicker... rainfall minutes after application cannot wash it off. It acts faster... kills weeds more quickly than any other type weed-killer. It's safe... used according to directions, it will not harm crops.



(Quick-Penetrating ESTER of 2,4-D) *Reg'd. trade-mark
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MAMMOTH PARADES LOG-ROLLING CARNIVAL ATTRACTIONS MASSED FIREWORKS INTERNATIONAL SPORTS INDIANS, MOUNTIES GAMES, SHOWS, MUSIC

Make this big, jolly week-long party a family affair. Bring the kiddies . they'll have a wonderful time. Write City Hall, Winnipeg, for information.



Fogging Insects

Insecticides applied as fog are suitable for both interior and exterior application

NEW machine has recently been brought into western Canada, designed to apply insecticides as minute particles in a fog. This is the result of another war development and is the agricultural application of the machines which were used to lay smoke screens around naval vessels.

The unit is complete. It may be mounted on a truck, trailer or boat, or on a jeep to which it is readily adapted. The 6.3 horsepower, aircooled engine drives a fuel pump, an insecticide pump and an air blower. A large volume of air is blown into a hot manifold at the base of a combustion chamber. Gasoline is pumped into the chamber through a jet at about 50 pounds pressure and the mixture is ignited by a spark plug. The temperature in the centre of the chamber reaches about 3,000 degrees Fahrenheit. The toxic chemical is dissolved in kerosene and this mixture is pumped into the base of the manifold at 25 pounds pressure. It goes through tangential slots to give it a swirling action as it leaves the nozzle and strikes the air. The burning gases, also swirling, come out around the chemical. The forceful combination of heat, pressure and turbulence breaks the insecticide up into particles of from one-half to 60 microns diameter. One micron is 1/25,000 inch.

The fog applicator has been used satisfactorily in the fight against locusts in Australia. Tests in the United States have shown it to be effective in grasshopper control work. It has been used extensively to apply DDT to garbage dumps; to fumigate houses and barns; to rid swamps and parks of mosquitoes and to free livestock from insect pests. The versatility of the machine and its power of penetration give it definite advantages in specialized work.—R.G.M.



The fog applicator laying a dense mass of insecticide particles which quickly penetrate the heavy foliage.

Peace Tower

Continued from page 4

Labor is against him for his attitude in the Asbestos, P.Q. strike. The clergy have turned against him too, for his rather indiscreet policies. Meanwhile, those who know best claim that Monsieur Maurice's political stock is at its lowest ebb for a long long time.

What does this mean? It means first of all that Duplessis's help is not worth as much as it was. Second, it also means that if Duplessis is far from well, he will be little disposed to help out George Drew, and indeed be little able to do so. Undoubtedly, many who worked for the Union Nationale last provincial election will work for the Progressive Conservatives this federal election. But without the might of Duplessis strongly behind the Conservatives, they will be a weak bunch. You want proof? Look what the P.C.'s did in Nicolet-Yamaska in 1945, without Duplessis help; a scant 844 votes. Yet Renauld Chapdelaine got 8,295 with the Duplessis machine behind him. Go further, and check what the Progressive Conservatives got in 1945, and you will find out they can get nowhere without Duplessis. Once it was said he would give his all for dear

old George. Now more and more he seems to be strictly a guy from Trois Rivieres who never heard of Drew. So say the soothsayers.

IN the Maritimes, there is not much to be gained for the Liberals, though they have a chance to pick up one or two, although conversely they might drop one or two.

Where the real gains will be made, however, will be in Newfoundland. The Liberals expect six out of seven. If you study the history of new provinces, you will find they usually come in on the government side. Indeed, oldsters recall that when British Columbia joined Confederation, it took about three parliaments before the Liberals managed to break into the solid British Columbia Tory phalanx. I also recall that Saskatchewan was pretty solidly Liberal for more than a quarter century after it got provincial status, while Alberta "behaved" till after Hon. Charles Stewart, the last Liberal premier, got the higher call. From then on, Alberta has never followed either of the old parties. So it seems sure as shooting that the newest province will all but plump for St. Laurent.

These are of course practically May Day speculations, and a lot can hap-

pen between now and election night. But many predict a Liberal majority over-all, and if you can get some neutrals, l.ke the C.C.F., alone, and persuade them to talk in confidence, they admit that they expect St. Laurent will form the next government, with the largest group. Some profess to see a majority over-all for the Liberals.

To sum it up, it is pretty hard to beat that Christmas Tree budget that Abbott brought down at Easter. One cannot overlook the fact that austerity is all but gone. The bridge across the Strait of Canso will sweeten the Maritimes. Higher old age pensions are designed to please people generally. These and half a hundred other things are expected by the Liberals to help. But I think the basic arguments of the Liberals will run something like this: today you are prosperous, taxes are low, and everybody is working. What more can anybody else offer you? Truth to tell, it is always hard to vote against Santa Claus anyway.

Cats to the Rescue

by SYLVIA BROECKEL

TROUBLED with moles in your fields and garden or rats in your barn and cellar? Then the answer to your problem might well be cats-lots of them if the rodent menace is great.

Time was when we kept only one cat. She was a hard and honest worker but rats moved in and took possession in spite of all her, and I might say, our efforts to control them. They invaded every likely spot in the buildings and yard, infested the feed stacks and tunnelled under the barn and granary floors. They wasted more grain than the pigs and poultry ate.

All the recommended rat poisons were of no avail so we resorted to a home-made mixture of ground wheat, sugar and strychnine. That turned the trick. After the first few obituaries, the rats, sensing a general demise moved out, lock, stock and barrel. However, since they were still at large there was the possibility of an early return, so we fortified the premises with four sturdy cats.

That some of the bolder rats did return was evidenced from time to time by the sight of one being dragged along between the spraddled legs of Boots, China, Blue Boy or Isaac.

It is seven years ago that the hordes of rats departed and never since have they been able to den up here and go on a rampant increase. We find, too, that cats are equally good at destroying moles which seem to be getting much too plentiful and are causing damage as well as annoyance with their continual digging.



Barnyard friends.

The Country Boy and Girl

THE month of May brings warm, happy days to us. It is a time of outdoor games, field days, calf club shows, and it is the time when we plant the garden. It is a patriotic month too, for on May 23rd we celebrate Empire Day and on May 24th we have Victoria Day. Boys and girls are very busy in May.

Everyone has a share in planning and growing the garden. After Dad has plowed and harrowed the land you go to work with rakes to lay out your plot. You use a line to keep your rows straight and arrange your garden to look neat and attractive, perhaps you use a border of flowers around your vegetable garden. Now, let's see—radishes, peas and carrots, which you will be able to taste as you wander around in your garden, pumpkins for a Hallowe'en jack-o'-lantern and corn for a corn roast in the fall.

Here are some garden sticks for you to whittle from soft wood about onequarter of an inch thick to use to mark your rows. Make the sticks about eight inches long and paint the vegetable represented in a bright, clear color. The bottom part of the stick need not be painted. A Junior Red Cross group, I know, found these garden sticks sold well in

know, found these garden sticks sold well in the spring and they were able to add to their funds by selling them.



The Mysterious Cat by MARY E. GRANNAN

HER name was Mitzi. She looked like a very ordinary cat the day that she walked into Katy Kane's garden. Katy laughed merrily when she saw Mitzi coming. Katy laughed because Mitzi's grey coat was covered over with golden yellow dust.

"Hello, little Cat," Katy said, "You've been rolling in the dandelions, haven't you?"

"Noooieow," answered Mitzi.

Katy laughed again. "You have, too," she said. "But then perhaps you don't know the dandelions by name. They're little yellow flowers and our meadow down by the creek is full of them just now, and you came up through the meadow. Would you like me to dust you off with my little broom?"

Mitzi didn't answer but went up to the kitchen door and meowed loudly. "I know what you want," said Katy. "You're hungry, aren't you? You want a bowl of milk."

"Yiowess," said the cat.

Katy opened the kitchen door and Mitzi followed the little girl into the kitchen. Mrs. Kane smiled when she saw the two of them. "Well! well!" she said, "and whom have we here, Katy?"

"A little cat," said Katy. "Her name is Mitzi, Mum."

"Oh? And how do you know that, Katy?" asked mother.

"I don't know how I come to know it, Mum. I just do. And she's hungry. May I give her some milk?" asked the little girl.

"Of course you may," said Mother.
"Yesterday's milk is on the second shelf. Give that to Mitzi. Who owns

the cat, Katy?'

Katy shook her head, as she said, "I don't know that either, Mum. She came up through the meadow, and she must have come through the dandelions, because look at her coat." Mrs. Kane looked.

"She's covered with a golden dust, isn't she?" said Katy's mother. "She must be a stray. I've not seen her in this neighborhood before."

"Mum," said Katy, "if she's a stray
. . . if no one claims her, may I keep
her for myself? I like Mitzi."

Mrs. Kane told Katy if no one claimed the cat within the next few days, she might keep her. Katy waited breathlessly for a week. No one claimed Mitzi, so Mitzi became Katy Kane's cat. She played hopscotch with Katy, she chased butterflies with Katy, she rolled in the tall grasses with Katy, but every afternoon at two o'clock sharp, Mitzi disappeared. And every afternoon at three o'clock Mitzi came home covered with yellow dust. Katy didn't think this strange; until the day that the dandelions were yellow no longer. They had all gone to seed, and were like fluffy white balls in the meadow. But Mitzi came home that afternoon covered with golden dust.

"Mother," said Katy. "Mitzi is covered with golden dust again, and Mum, there's no yellow dandelions in the meadow. Mother, where has she been?"

"I'm afraid I can't answer that, Katy. But it is very mysterious. If I were you, I'd follow Mitzi tomorrow at two o'clock. I'd find out once and for all, just where she goes," said Mother.

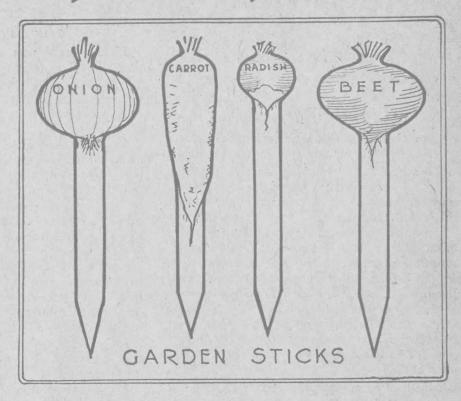
The next afternoon, Katy tiptoed after the mysterious cat. She followed her down through the meadow and to the brook that wound its way between the rocky ledge behind which the sun went to sleep each night, and the field where the yellow dandelions had been. Katy couldn't believe her eyes, when she saw Mitzi leap to a stepping stone in the brook and meow three times, and say:

"Meow . . . meow . . . Diddle dum,

Open Gateway to the sun."

There was a sound of thunderous rolling, and the rocky ledge across the brook opened. As Mitzi leaped to go inside the door, Katy caught a glimpse of the golden beyond. She dashed across the brook and pounded on the rocky ledge, calling, "Mitzi... Mitzi, let me in."

But no one answered. Katy ran to her mother and told her what had happened. "Well Katy," said Mother, "if you heard what Mitzi said, why didn't you say the same words? The doorway might have opened for you."



"Yes," Katy said. "Well I still remember the words. I'll go back and try it now."

Katy did. The doorway opened, and she walked into a room of gold. "What is this place, Mitzi," she asked of the surprised little cat.

"It's the Sun's bedroom," said Mitzi. "You should know that. You've watched him going down behind this hill, ever since you can remember, haven't you?"

"Yes," said Katy. "But what are you doing here?"

"I come to make his bed," said Mitzi. "But you shouldn't have come, Katy. The sun wouldn't want any one but me to know that he is too lazy to make his own bed. Katy, will you keep the sun's secret for him?"

"Yes," said Katy. And she kept the secret. Mother understood when Katy told her that she could not tell what was behind the magic mountain. Perhaps Mother knew the mystery of the mysterious cat. Perhaps she didn't. I don't know.

Cross Shape Puzzle

You will have to do some "puzzling" before you fit these five strange shapes together but if you have patience you can make these pieces form a cross. Begin by tracing the pieces on paper, then mount them on cardboard so your puzzle won't wear out too soon. Solution on page 94. Sometime you may want a small gift for a friend or a donation for a fish pond at a bazaar. Two or three

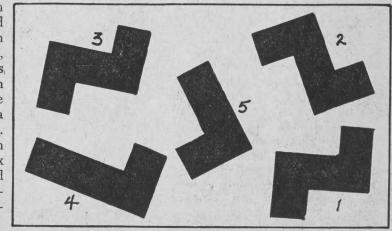
puzzles such as this could be cut from light plywood, the edges sanded, then each puzzle set painted a different color. Arranged in an attractive box they would make a welcome gift.—A. T.

Interesting Indoor Stunts

HOW are you on "stunts?" Can you "do things" with your hands? You can? Well, let's see! Try these stunts.

- 1. Pick up a marble from a round bowl using only a knife. (Just for fun, make this a family game.)
- 2. See how long you can balance a ruler on the tip of your finger. (Try both hands.)
- 3. Try putting on your coat or sweater "other" arm first. (Sounds easy, doesn't it?)
- 4. Place two coins on the back of your hand. Toss them in the air and catch them both as they come down. Try this with both hands.
- 5. Place a piece of paper on a carpet. Stand six feet away. Throw ten coins, five with each hand so that they settle as close as possible to the paper. If five or more lie within a foot of the "bull's eye" your control is good.
- 6. Close your eyes and stretch your arms at your sides. Then swing your arms slowly in front of you and when level with the floor move them in slowly so that the tips of your fingers meet. You pass this test if your middle fingers touch each other in three out of five tries.

Practising steadiness is a good exercise. You will find a steady hand and a keen eye will come in handy at both work and play later on.—Walter King.





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THE Nor'-WEST FARMER and FARM and HOME Serving the farmers of Western Canada Since 1882

Vol. LXVIII

WINNIPEG, MAY, 1949

No. 5

Hopper Warfare

Western Canada is this year facing the painful prospect of fighting grasshoppers on a big scale.

To be successful, defensive measures must be undertaken as soon as the hoppers emerge. Once they are on the move the first round of the contest has been lost. Individual efforts, no matter how determined, are useless. Hopper warfare requires organization on a municipal basis. It is of the greatest importance that every farmer in an infested area carries out his share of the campaign faithfully and intelligently. One laggard in a municipality may undo the best efforts of his neighbors by failing to give his whole-hearted co-operation. The part which individuals play in the great concerted effort planned for early summer is for each one a test of his citizenship.

Equally heavy responsibility rests on provincial departments of agriculture and municipal authorities. Large quantities of supplies have to be got to the place where they will be needed. Good planning must be undertaken to make effective use of the labor force. Clear instructions must be framed, followed through with a check on performance. No dispute over division of costs should be allowed to endanger success. The campaign has all the urgency of a military operation and any failure should weigh as heavily on the individuals responsible regardless of rank.

On Government Spending

There is a fairly large class of people in Canada who regard public finance as a device by which the mass of the people can get something for nothing. Events of the coming summer will not help to dispel that notion. Electioneering candidates, seeking to persuade all who will listen, will succumb to the very human tendency to promise everything that has a vote in it. None of them, it is safe to say, will tell their audiences where the funds will come from. Voters will be promised a more liberal scale of old age pensions, a more comprehensive public health policy, more adequate national defense, government support for better low-cost housing, an extension of veterans' benefits, a public works program to meet the desires of the particular audience, and an assorted list of frills of tested local appeal. At the end of this glittering list there may even be a promise to reduce taxation.

To the candidates The Guide recommends the courageous realism of Sir Stafford Cripps, Britain's Socialist Chancellor of the Exchequer. In his pre-election budget of early April, Sir Stafford resisted the temptation to dress his electoral window, and gave his public some grim reminders that "they cannot eat their cake and have it too," to earn the praise of the critical London Economist, which says editorially: "It will be a poor day for Britain when such honesty is not recognized—and rewarded."

The inescapable truth is that in the long run government spending comes out of the pockets of the taxpayers. A good case can be made for many of the things which will be promised. Every Canadian winces at the idea of old people living in want. Canadians are proud of their war veterans and anxious to display it in a practical way to the limit of their ability. The importance of national defense needs no argument in the middle of a cold war. And so on down the list. If the voters endorse all the policies for spending outlined, and feel that they personally can afford their share of the expenditure involved, by all means let us have them. If the majority of Canadians are content that a smaller share of their incomes should be available for personal spending, and a larger share should be

devoted to building up an environment which would satisfy all, let us elect the candidates who promise liberally, with the full assurance that our purses will be open when the bill is presented. But let us not proceed under the delusion that someone else will pay.

The Brannan Plan

If any proof was wanted that the American parity price program has some creaking defects, it is provided by Secretary Brannan's evidence before the Agricultural Committee of the House of Representatives, in April, and in his subsequent declarations.

Congress passed the Aiken Law only a year ago to mend the most obvious shortcomings of the parity program. Its chief feature was to depart from the 90 per cent payments and adopt a sliding scale which may go as low as 60 per cent on commodities which become over-abundant. But Mr. Brannan states that the direct cost of price support is becoming too high for the taxpayer. It may easily tie up three billion dollars this year, and larger amounts in the future in spite of lowered rates in the Aiken Law. Besides this, it is keeping retail prices at unjustifiably high levels. The American treasury paid an average of \$23,000 per farm in one state, and \$13,000 in another to potato growers on a policy which keeps the retail price up to six cents a pound.

To get away from this unsatisfactory situation Mr. Brannan proposes an alternative policy which now goes by the name of the Brannan plan. It is based on the concept of a national farm income that moves up and down with changing price levels. For instance, the average annual income for American agriculture for the period 1939-1948 may be taken as \$18,218,000,000. On March 15 of this year the parity index based on the same period was 144. Under the Brannan plan, therefore, American farm income for 1949 would be \$18,218,000,000 multiplied by 1.44 or \$26,234,000,000.

In the application of the plan, farm products would be divided into two classes: products which can be stored and perishables. The former would be dealt with much as they are now by commodity loans and purchase agreements. Perishables and semi-perishables, which now make up 75 per cent of the American farm income, would be allowed to seek their own price levels in the open market. If the market price was below the support price the government would pay the grower the difference in a "production payment." Eligibility for price supports would be contingent upon observance by producers of sound conservation practices and also by compliance with programs found necessary "to curtail wasteful production and disorderly marketing." In other words, the administration which cannot curb over-production under the present parity price plan leaves the door open for acreage control and quota arrangements.

Mr. Brannan pays respects to another principle which will earn him the hot denunciation of all big operators. He plans to encourage family farms and to discourage large industrial farms. The maximum volume of production eligible for price support on any one farm would be 1,800 units. A unit is expressed in varying quantities of different crops. It may be 10 bushels of corn, 7.7 bushels of wheat, 52.16 pounds of cotton, or 346 pounds of milk. Put into terms which would be familiar to Canadian farmers it would mean that a grain grower would obtain the benefit of price support on the produce of about 1,000 acres. If the acreage in crop were greater, or the yield above average on that acreage, he would not get support prices for the excess. Only about two per cent of American farms would be thus discriminated against, but these large farms account for about one quarter of American food production.

In presenting his case, Mr. Brannan says that the American taxpayer is going to demand some revision of the parity program when he realizes the cost at predicted higher levels. The alternative put forward, he claims, will not cost the nation so much, which is another way of saying that the whole body of agriculture will get less. The new phrase he has introduced, "production payments," is a straight form of subsidy. It will be paid direct to

producers and will thus short-circuit middlemen who are now cut in on payments. At lower price levels on perishables their mark-up and profits will be less, although they may gain something on volume increase.

American farmers will scan the plan closely because of their reluctance to give even the appearance of support to any device which might let acreage control in at the back door. Wallace's Farmer, an influential Iowa publication, declares that Corn Belt farmers will have none of it. Opposition from industrial centres has already labelled the plan socialistic, a tag of fearful potency in the United States.

Food Parcels For Britain

Today more than at any time since the dark days of 1940, the average Briton—man, woman and child—urgently requires additional food to supplement the meagre ration. It was a general hope that the British food position would improve with the end of hostilities. Instead it has become worse in some important respects. Argentina's failure to live up to her British beef contract forced Britain in March to reduce her meat ration to a quantity which can be purchased in Canada for 14 cents. This must last a week! If a family of three pools its ration for a week it gets a piece of beef or mutton about one pound in weight, including bone, plus enough bully to make one sandwich.

Despite statements to the contrary, a survey reveals that more than 99 per cent of the British people subsist on a marginal diet inadequate for normal physical needs, monotonous, and not conducive to the stamina required for the nation to regain the position Britain has held in the past.

Thousands of Canadians who enjoyed the friendly hospitality of British families during the war have done what they could to relieve the situation by sending private food parcels. But even the most open-handed feel that the money demanded by the post office for transmission is entirely out of line with the cost of the food in the parcel. It has long been apparent that an overhead organization of some kind should be formed for the cheap and reliable conveyance of these food parcels.

Such a body has now come into being in the form of the United Emergency Fund for Britain, contracted to UEFB. Its sponsors in Britain are people of the highest standing, the distinguished name of the Countess of Athlone heading the list. The Red Cross supervises distribution in England. The Fund has secured some very important concessions from the British government including free ocean transport, free warehousing and handling in Britain, free inland transportation, and exemption from customs and excise duties. It is hoped that the economies thus provided will draw under one roof all the many older organizations worthily engaged in this work, and that the volume which the UEFB will eventually handle will place the highest possible portion of the Canadian donor's dollar on the British family table and the smallest possible fraction to get it there.

The Fund is being vigorously espoused by groups of Canadians whose names are guarantees in their respective communities. The general plan is to establish local groups which will collect funds for the purchase of bulk shipments for Red Cross distribution to unnamed persons in Britain. These bulk purchases will be made from Canadian sources only, and at wholesale prices. For the Canadian giver who is unwilling to sever his present ties with certain British families provision is made for the guaranteed delivery of individual parcels to named persons with full credit to the donor.

Participation in the work undertaken by UEFB is not charity, nor is it put forward as a duty. It is enlightened self-interest. It is a matter of supreme importance to Canadians that British recovery be as rapid as possible. The survival of democracy in western Europe depends in large measure upon it. The good that this organization can do is out of all proportion to the amount of money required. The Guide recommends to all its readers who are able to assist that they write to the provincial headquarters of UEFB as listed on page 94 for literature, or better still send a generous contribution.